Corporate Community Involvement Disclosure: An Evaluation of the Motivation & Reality

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CORPORATE COMMUNITY INVOLVEMENT DISCLOSURE: AN EVALUATION OF THE MOTIVATION & REALITY

By

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CORPORATE COMMUNITY INVOLVEMENT DISCLOSURE: AN EVALUATION OF THE MOTIVATION & REALITY

Abstract

This study focused on Corporate Community Involvement Disclosures (CCID), a theme usually disclosed under Corporate Social Responsibility Disclosures (CSRD) in annual reports. The primary aim of the research is to investigate the genuineness and *raison d'être* of CCID in annual reports. To do this the researcher adopted a holistic approach employing an extensive theoretical framework, which integrates Legitimacy, Stakeholder, Agency, Signalling and Semiotics theories and asking three main research questions. Firstly, what are the motivations for CCID in annual reports? Secondly, what is the information content of CCID in annual reports? And lastly, how real is CCID in annual reports? That is can CCID be read and construed as a real measure of corporate community development (CCD)? Using content analysis and a quality score index the study examined a panel dataset covering the period from 1999 to 2009. The data was collected from a sample of 803 annual reports of 73 UK companies taken from the FTSE 350 companies and cutting across all ten industries of the Industrial Classification Benchmark (ICB) Index. Generally the study is more of a quantitative study with hypotheses developed and tested with panel data regression models in order to provide answers to the three research questions. However, due to the sensitivity of the third research question, in addition to panel regression, the researcher performed a qualitative analysis of question three using semiotics.

The study provided evidence to show that CCID as disclosed in annual reports have an undertone of reputation/impression management like other CSR disclosures (CSRD). The community activities reported do not seem to address the expectations of the local communities *per se*; rather the disclosures seemed to be targeted at a wider stakeholder group that is likely to offer immediate reward for such disclosures. Similarly result from semiotic analysis revealed that signification of reality is either doubtful or unreal for most companies sampled. The study is unique as it is the first to explore the reality of CCID as it appears in annual reports using a combination of a panel study approach and semiotics. In addition a major contribution of the study is that it explored the ways in which multiple theoretical underpinnings can inform research by developing a CCID Meta-theory model and thus provided a robust and enriched analysis and unique insights into the CCID phenomenon.

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List of Acronyms and Abbreviations

ACCA	Association of Chartered Certified Accountants
APB	Auditing Practices Board
ASB	Accounting Standard Board
BHP	BHP (Broken Hill Proprietary) Billiton Plc
BITC	Business in the Community
BLUE	Best Linear Unbiased Estimator
CCD	Corporate Community Development
CCI	Corporate Community Involvement/Investment
CCID	Corporate Community Involvement Disclosures
CG	Corporate Governance
CSR	Corporate Social Responsibility
CSRD	Corporate Social Responsibility Disclosures
DTI	Department of Trade and Industry
DV	Dependent Variables
FASB	Financial Accounting Standards Board
FE-GLS	Fixed Effect-General Least Square
FRC	Financial Reporting Council
FTSE 100	The Top 100 companies listed on the LSE
FTSE 350	The Top 350 companies listed on the on the LSE
FTSE Euro100	100 most highly capitalised blue chip companies in European
FTSE4GOOD	Measures the performance of companies that meet globally recognized CSR standards.
GRI	Global Reporting Initiatives
IASB	International Accounting Standards Board
IBM	IBM (International Business Machines) UK
ICB	Industrial Classification Benchmark
IÖW	Ecological Economy Research
ISO	International Organisation for Standardisation
IT	Information Technology
IV	Independent Variables
KPMG	KPMG LLP (UK)
LSE	London Stock Exchange
NACD	National Association of Corporate Directors
NYSE	New York Stock Exchange
OECD	Organisation for Economic Co-Operation and Development
RE-GLS	Random Effect-General Least Square
RRM	Reputation Risk Management hypothesis
SEC	Security Exchange Commission
SRI	Stanford Research Institute
TQS	Total Quality Score
UK	United Kingdom

Acronyms and Abbreviations Cont'd

UN	United Nations
US	United States of America
VOLCCID	Volume of CCI in annual reports

Chapter 1: Introduction

1.1 Chapter Overview

The main focus of this chapter is to set the context for the thesis. The thesis focuses mainly on the subject of Corporate Community Involvement Disclosures (CCID) in annual reports. The fact that corporate disclosures, whether contained in annual reports, press releases, accounting magazines or even a separate CSR reports and in whatever format, whether quantitative, narratives, images, graphs or in tables, all represents, means of communication, has been well argued by accounting scholars such as Jain (1973); Belkaoui (1978); Cooper and Puxty (1994); Macintosh *et al* (2000); Macintosh and Baker (2002); Macintosh (2003); McGoun *et al*. (2007); Davison (2007, 2011). In the first paper published by the journal *Accounting, Auditing and Accountability*, Gray, Owen and Maunders (1988) argued that CSR reporting was linked to accountability and the social contract. This indicates that an organisation obtains, in effect, a licence to operate which may be revoked if society believes it to be operating outside of what is acceptable to society. Hence, societal pressure to act on behalf of members of that society may inform the development of a CSR response or strategy. In this way, organisations align their values with those of society (Garriga and Melé, 2004). In other words, organisations have a responsibility to ensure that the actions they take and the activities they engage in are to the benefit of society. One such set of actions is Corporate Community Involvement activities, which is the focus of this thesis.

The chapter is structured as follows. The next section discusses the motivation and scope of the study, while Sections 1.3 and 1.4 describe the problem and objectives of the study respectively. Section 1.5 presents an overview of the research method employed for the study while Section 1.6 states the originality of the study and contributions to the body of knowledge. Finally Section 1.7 provides an outline of the contents of the rest of the chapters in the thesis.

1.2 The Motivation and Scope of the Study

The motivation for this research stems from the dearth of research and literature regarding the disclosures of corporate community involvement activities in annual reports generally and specifically the fact that no study, as far as the researcher is aware, has looked beyond the content of this information in an attempt to explore the reality of it as disclosed in annual reports. This is despite the fact that a growing body of literature (Cowton, 1987; Campbell *et al.* 2002; Brammer & Millington, 2004 & 2005; Campbell & Slack, 2007; Choi & Wang, 2007; Patten, 2008), has attempted to investigate corporate charitable/philanthropic giving as an indication of corporate community involvement, thus narrowing the definition of corporate community involvement to cash gifts. Such investigation is not only deficient, but provides a misleading picture of the overall nature of corporate community involvement. Besides, these studies only investigated the significance, motivation and management of corporate charitable/philanthropic giving in the organisational context and not the motivation for or the significance of its disclosure in annual reports. This identified gap in literature in itself provided the motivation for this current study.

Furthermore, one can see that the several decades of research on the issue of voluntarily disclosing CSR information in annual reports is a pointer to the doubts about the credibility and genuineness of such disclosures. Suffice to say that lack of a generally accepted accounting theory has also not helped in researching and providing explanation for CSR disclosures (CSRD) thus leading to it been widely and contentiously debated in accounting literature (Bebbington, Larrinaga and Moneva, 2008b). Consequently over 30 groups of theories have been examined at one time or the other by different authors as possible explanations for the disclosure of CSR information (Thomson, 2007, cited in Gray, Owen, & Adams, 2010:2). However there is yet to be a consensus as to the best theory in explaining these disclosures. Gray *et al.* (2010) argued that each of the theoretical lenses on their own will fail to fully explain the phenomena as each of them is likely to be imperfect and incomplete; they argued that intersections between theories will likely lead to a more intellectual debate, thus supporting Bebbington *et al.'s* (2008a&b) argument for theoretical openness and the use of multiple theories in explaining the phenomena.

Against this background, therefore, the researcher will adopt a holistic approach to the evaluation of CCID in annual reports as a singular topic, although usually discussed under CSRD, by examining an extensive theoretical foundation for the topic following the suggestions of Bebbington *et al.* (2008a&b) and Gray *et al.* (2010). Five theories – legitimacy, stakeholder, agency, signalling and semiotics theories – will be reviewed and explored in order to achieve an in-depth study and analysis of the phenomena. The relationship of these theories to one another will be extensively explored and their relevance and adequacy in explaining the motives behind CCID will be examined.

Furthermore, the study will benefit from the use of both cross-sectional and longitudinal datasets (also called panel datasets) as opposed to cross-sectional only or time-series only data and will be analysed using special models and statistical methods of analysis specifically designed for panel datasets. These models have special features that are specifically designed to control for unobserved heterogeneity bias that could affect CCID, which could otherwise be omitted if solely cross-section or solely time series data was used (Dougherty, 2007). In addition the research will be exploratory (using the multiple theoretical approach), empirical (developing and testing hypotheses) and evaluative in scope. It will focus specifically on CCI disclosures through the annual reports alone as the annual reports appear to be the most authentic communication medium recognised and acceptable to investors (Guthrie and Parker, 1990; Adams, Hill and Roberts, 1998) and the only document routinely sent out to investors (Adams *et al.* 1998). The samples for the study will be limited to the UK FTSE 350 companies.

1.3 Problem Definition

The contention of this thesis is that if managers are able to enhance their value maximization strategy by reporting the company’s financial performance through annual reports, are they also able to enhance value maximization strategy by reporting on the company’s non-financial performance such as the community activities undertaken by the company? Furthermore, are disclosures of CCID in annual reports a true reflection of Corporate Community Development (CCD), or are they mere signals of adherence to societal expectations? In other words, is there any real motivation for community involvement apart from being a CSR theme, or is there really any *active* involvement in community development? And if there is active involvement, what is the value relevance of this piece of information to the target audience of annual reports – the investors?

It is the motivation of this thesis to carry out a detailed evaluation of the phenomena in order to provide empirical answers to these fundamental questions raised in this section which form the basis for the following research objectives.

1.4 Research Objectives

The researcher hopes to achieve the following research objectives at the end of the study:

- To establish the motivations for CCID in annual reports.
- To determine the effect of the demand for CSR on the disclosure of Corporate Community Involvement in annual reports over the years.
- To explore the value relevance and information content of CCID to investors.
- To establish whether value maximization strategy can be enhanced by reporting on the community activities undertaken by the company.
- To establish whether CCID in annual reports can be read and construed as true measures or quality signal of CCD.
- To establish if there is really any active involvement in community development by corporations.
- To establish the effectiveness of multiple theoretical approaches in providing insight into the contentious topic of CSRD in general and CCID in particular and thus enrich research in the subject area.

These research objectives will be converted into research questions and hypotheses and tested using a panel study approach, while the texts of the narratives will be subjected to qualitative analysis using semiotics.

1.5 Overview of Research Method

To achieve the set objectives stated above, the objectives were summarised and expressed as three main research questions from which testable hypotheses were developed in order to properly define the variables to be tested and their operational construct. In answering the first two research questions, the researcher adopted a quantitative research method. Data were collected from a sample of 803 annual reports of companies selected from the FTSE 350 companies and covered an 11-year period from 1999 to 2009. The data collection method adopted is content analysis and the main variables of interest are the volume and quality of CCID. Volume of CCID was measured using word count as the unit of measurement, while the quality of CCID was measured using a quality score (TQS) obtained on a four-element index. Financial data were collected from the Thompson Reuter DataStream and occasionally from the annual reports where this was not available on the DataStream, while news media data were collected from the LexisNexis Library.

The data collected were entered into an Excel spread sheet for clean-up and further analysis. The raw data were filtered and analysed according to year, disclosure theme and so on depending on the research objective or research question to be answered. The data for some of the variables were normalised using natural logarithm, while extreme cases of outliers were excluded. Other statistical tests like the Jarque-Bera (Skewness/Kurtosis) test and the Shapiro-Wilk W test were also performed to check and ensure that the assumption of normality was not violated. The researcher decided on the Random-Effect (RE) with Generalised Least Square (GLS) method for the analyses after confirming that this was more suitable for the data collected than the Fixed-Effect (FE) method by conducting both the Breusch-Pagan LM test and the Durbin–Wu–Hausman test. The RE-GLS regression model was also preferred over the commonly used OLS regression as this model was able to capture the panel nature of the dataset and thus control for unobserved heterogeneity bias. Nevertheless further post-estimation and robustness checks and various sensitivity analyses were performed in order to ensure the validity of the results.

Five main hypotheses were tested for the first research question and one main hypothesis, split into four sub-hypotheses for the second research question using the RE-GLS regression models. However since the third research question focuses on investigating the reality of CCID in annual reports, the investigation was approached from both the quantitative and qualitative perspectives. Macintosh and Baker (2002), illustrated that as the language of business, the claim that accounting information represents an objective reflection of reality can only be sustained when such information is investigated for their narrative qualities. They contend that economic-based theories have lost power in constructing reality. Hence the researcher took keen interest in exploring the use of semiotics along with an economic-based theory – signalling theory to investigate the reality of community involvement disclosures in annual reports.

Therefore the quantitative aspect was analysed using a panel study approach and the RE-GLS regressions, the same as in the first two research questions, while in the qualitative analysis the texts of the narratives were semiotically analysed using the Greimasian narrative semiotic method (Greimas, 1983; Greimas & Courtés, 1982) in order to uncover the reality/authenticity of the narratives as disclosed in annual reports. Hence while the quantitative perspective examines the reality of CCID from the point of view of its quality as a signal of CCD, the qualitative perspective views reality from the possible interpretation from the audience at which the report is aimed.

1.6 Originality and Contribution to Knowledge

The originality of this study stems from the fact that it is the first to explore the reality of CCID as it appears in annual reports using a combination of a panel study approach and a literary method (semiotics) and thus produces a robust and enriched analysis of the phenomena. The enriched and robust analysis provides unique insights into the disclosure of corporate community involvement as adopted by companies themselves and allows us to understand what activity companies actually undertake in the category of 'community involvement' and how seriously they regard these activities.

In addition the study explored the ways in which multiple theoretical underpinnings can inform research in this area by developing a CCID Meta-theory model and thus adds to our understanding of the importance of multiple theoretical approaches. The adoption of a multiple-theoretical model in this thesis provides a means of interpreting how and why companies become involved in their communities, and therefore enriches our knowledge of the real motivation for CCID and enables us to assess whether there is any real motivation for it or whether companies only pay lip service to this as a means of demonstrating a model of corporate citizenship which is compliance-led.

Furthermore the study is unique and novel in that contrary to the first study on this subject area, Campbell *et al.* (2006), and other studies of this nature with biases in the motivation for social disclosures, this study employs advanced parametric techniques (Panel data regression models) to ensure an enriched and robust analysis. Other studies of this kind used either cross-sectional only datasets (for example Adams *et al*., 1998; Deegan, Rankin and Voght, 2000) or longitudinal only datasets (for example Campbell, 2000; Watson, Shrives and Marston, 2002). Even where both (cross-sectional and longitudinal) were used they were often analysed with nonparametric techniques (for example Campbell *et al*. 2006). Nonparametric techniques generally are less efficient than parametric methods where normally distributed data is obtained (Bryman & Bell, 2007; Dougherty, 2007; Bryman, 2008a; Saunders *et al.* 2009). And even where normality is in question, there is evidence that parametric techniques produced more efficient results than their nonparametric equivalent (Vickers, 2005).

1.7 Structure of Thesis

The rest of the thesis is structured as follows. The next three chapters (Chapters 2, 3 and 4) present a review of the empirical/theoretical literature and the development of hypotheses. Chapter 5 presents the research method and limitations. Chapters 6, 7 and 8, present the results and interpretations. Chapter 9 concludes the study. Below is a more detailed overview of the chapters.

Chapter 2 provides the background to the study and begins with a comprehensive definition of Corporate Community Involvement (CCI). The chapter proceeds with a brief history of the development of the phenomenon in the UK and a review of existing literature on CCID. The review revealed a conspicuous gap in the literature as there is very little extant literature on the subject thus necessitating a general review of CSRD literature in order to put the study into proper perspective. Relevant empirical issues in CSRD literature were therefore reviewed in relation to the question of why CSR is disclosed in annual reports, links between CSR/Economic performance/CSR reporting, quantity/quality of disclosure and theoretical issues. This provided the basis for the theoretical framework for this study which is the focus of the next chapter.

Chapter 3 discuses the need for theoretical openness and provides a detailed review of four main theories identified in the extant CSR literature; Legitimacy, Stakeholder, Agency and Signalling theories, while introducing a literary theory – Semiotics – which is yet to gain prominence in investigating social disclosures. The five theories were reviewed in the light of studies that have explored them as explicators of CSRD, while pointing out the limitation of each theory when used in isolation as explicator for CSRD. The inter-relationship of these theories in explaining CCID is identified and explored, thus leading to deducing a total of ten propositions.

Chapter 4 deconstructs the propositions into research objectives and subsequently into three main research questions which were developed into testable hypotheses. The chapter is divided into three parts according to the three research questions and each part of the chapter discusses the development of hypotheses for each of the research questions. Five main hypotheses were developed for the first research question, each of which is intended to examine the motivation for CCID. In the second part of the chapter one main hypothesis, split into four sub-hypotheses was developed for the second research question on the information content of community involvement disclosures. The third part provides two perspectives of investigating the reality of community disclosure – the quantitative perspective and the qualitative perspective.

Chapter 5 describes the methodology. The chapter begins with a brief review of the philosophical and epistemological orientation of the research and proceeds with a discussion of the methods that have been adopted by previous researchers in similar studies pointing out the benefits and drawbacks of these methods in other to appropriately situate the methodology suitable for the current study. Details of the method adopted in this research are discussed while giving justification for not adopting alternative methods. The chapter ends with discussions of the challenges and the limitation of the research methods adopted.

Chapters 6, 7 and 8 present the empirical analyses and results of the study. Chapter 6 focuses on the results for research question 1 on the motivation for community involvement disclosures, while Chapter 7 focuses on the information content of community disclosure, thereby answering research question 2. Chapter 8 focuses mainly on the reality of community disclosure in annual reports from both the quantitative and semiotic perspectives.

Chapter 9 provides a summary of the main analysis and findings of the study, while relating the applicability of the findings to the explanatory power of multiple theorising. The potential implication of the findings for accounting professionals, researchers, academics and policy makers and suggestions for future research are identified and discussed, while also pointing out some identified limitations of the study.

Chapter 2: Background to the Study

2.1 Chapter Overview

The focus of this chapter is to provide the background to the study by reviewing relevant prior and extant literature on the subject area of this thesis – Corporate Community Involvement Disclosures (CCID). However various search engines employed in the search of literature for the subject area turned up very few studies examining CCID as a singular topic. On the other hand, Corporate Social Responsibility Disclosure (CSRD) as a recent phenomenon in accounting literature has generated a lot of conflicting literatures ranging from decision usefulness (Belkaoui, 1980; Milne and Chan 1999; Milne and Patten, 2002; Rikhardsson and Holm, 2008) to market reaction studies (Anderson and Frankle, 1980; Freedman and Jaggi 1982, Ingram and Frazier, 1983; Murray *et al.*, 2006; Becchetti *et al*, 2007). However the findings of these studies are inconclusive. Consequently since CCID is a topic usually considered under CSRD and little work has been done on CCID on its own, it was decided to carry out a general review of the CSRD literature, firstly to identify empirical issues relevant to the current research problems which will help put the current study into a meaningful context, secondly to provide a theoretical framework for the current study and finally to serve as a link of previous findings to the current research problem.

The first section of the chapter provides background information on CCI. The section begins with a definition for CCI and then proceeds with a brief historical perspective and current trends in CCI. The second section of the chapter reviews previous studies on CCID. The third section reviews previous empirical works on CSRD literature. However CSRD literature covers a wide range of issues examined from various angles and different degrees of emphasis. Therefore in order to keep the review of CSRD literature within manageable proportions, the articles selected for review are categorised according to the empirical issues considered relevant to the current study. These are: Why disclose CSR in Annual Reports, the link between CSR /Economic Performance and CSR Reporting, Quantity versus Quality of Disclosures and Theoretical issues. This thesis seeks to identify and redress the deficiencies of previous CSRD studies on these empirical issues and thus contribute to the CCID literature in particular and CSRD literature in general. A summary of key literatures reviewed in this chapter is presented below:

Figure 2. 1: Key Literatures on CCID and CSRD

Previous work on CCI/ CCID

- **Background Information on CCI:**
- Moon & Muthuri (2006)
- Hess *et al*, (2002)
- Bush *et al*, (2008)
- Dunfee, (1998)
- Dodds, (2011)
- Kanter, (1999)
- KPMG Survey, (2005, 2008 & 2011)
- Tallon, (2010)

- **Previous studies on CCID**
- Campbell *et al*, (2006)
- Epstein & Freedman (1994)
- Cowen *et al*, (1987)
- Patten, (1991 &1992)
- Branco & Rodrigues, (2008)

Empirical issues in CSRD

- **Why CSRD?**
- Gray *et al*, (1995b)
- Hackston & Milne, (1996)
- Adams *et al*, 1998
- Ahmad & Sulaiman, (2004)
- Belal & Owen, (2007)
- Haniffa & Cooke, (2002)
- Toms, (2002)
- Kolk, 2003
- Hasseldine *et al*, (2005)
- Bebbington *et al*, (2008)

- **Any link in CSR/Economic performance/CSR reporting?**
- Ullman, (1985)
- Waddock & Graves (1997a)
- Crowther, (2002)
- Magness (2006)
- Mittal *et al*, (2008)
- Nelling & Webb, (2009)
- Mishra & Suar, (2010)
- Garcia-Castro *et al* (2010)

- **Quantity Vs. Quality**
- Walden & Schwartz, (1997)
- Beretta & Bozzolan, (2004 & 2008)
- Botosan, (2004)
- Beattie *et al*, (2004)
- Freedman & Stagliano, (2008)

- **Theoretical issues**
- Bebbington *et al*, (2008a&b);
- Unerman, (2008)
- Adams, (2008)
- Gray *et al*, (2010)
- Ball & Craig, (2010)
- Crowther (2002)
- Yusoff and Lehman, (2009)
- Davison, (2011)

2.2 Background Information

2.2.1 Definition of CCI

Corporate Community Involvement/Investment (CCI) has been defined as the involvement of businesses in social initiatives in a bid to meet the needs of the communities in which they operate (Moon & Muthuri, 2006). Hence CCI goes beyond donation of cash gifts or philanthropic giving to include committing significant time and company resources to community projects. These projects could vary from providing support to communities for the improvement of health, education, aids to victims of war or to developing countries. According to KPMG (2005), most reports on community involvement cited programmes aimed at improving health and school/education, employee involvement (volunteering), HIV/AIDS prevention programmes, water projects and so on. However the most featured of them is school programmes with 65%, followed closely by volunteering 58%.

Similarly, Moon & Muthuri (2006) assert that CCI is far more than donations to charities but includes giving local people and organisations access to company's equipment or infrastructure, human resources and business capacity, although many companies also donates money to good causes as part of their community involvement strategy. For example, many organisations donated money and services to help victims of the terrorist attack on New York and Washington. Nowadays corporations provide support within their core competences; an example is the United Parcel Service (UPS) that is using its existing resources to deliver humanitarian aid to refugee camps and to victims of hurricanes and tornadoes (Hess *et al.* 2002). Other examples include the donation of computers and IT expertise to schools by Intel and IBM.

Accordingly, Ernst and Ernst (1978) classified CCI into four main categories, namely, Community Activities; Education and the Arts; Health and related Activities and Other Community Activities, see Table 5.2, Chapter 5 of this thesis for a breakdown of what constitutes each CCI theme. Subsequently, studies such as Ingram and Frazier (1980); Roberts (1992); Gray, Kouhy and Lavers (1995b); Deegan and Gordon (1996) and Hackston and Milne (1996) all adopted the Ernst and Ernst (1978) classification of CCI in their studies. Drawing heavily on these studies therefore, the researcher will maintain the use of the Ernst and Ernst classification in this study.

2.2.2 Historical Perspective

However looking back, CCI was one of the strategies adopted for economic and social regeneration by the UK government between the late 1940s and early 1960s (Tallon, 2010). Although philanthropic activities in the UK, pioneered by names like Cadbury, Lever, Marks and Spencer and Rowntree, dated back to the 19th century, it declined drastically with the devastating effect World War II had on these organisations as well as the economy as a whole (Bush *et al.* 2008:6-9). Therefore in an attempt to counteract some of the devastating effects of the war, such as poverty, unemployment and homelessness, various national governments including the UK, introduced urban regeneration policies one of which was community development (Bush *et al.* 2008; Tallon, 2010). Even though the UK government had focused attention on the most disadvantaged communities (Gilchrist, 2003), businesses were encouraged to get involved with community development with the intention of increasing the rate of industrial and economic development throughout Britain (Moon & Muthuri, 2006). Consequently corporations moved from philanthropic activities prior to World War II, such as donations and public relations, to actual involvement in community development (Bush *et al.* 2008).

In addition, various community organisations such as the Community Development Foundation, the Royal Institute of British Architects, Community Architecture Group, Business in the Community and the Association for Community Technical Aid Centres, were created in the UK to influence various development programmes affecting their local communities. In the early years these organisations devoted their efforts to structuring CCI towards the regeneration and development of local communities (Bush *et al.* 2008). However, in recent times there has been much debate on whether regeneration policies such as CCI have had any serious impact on the targeted areas (Dodds, 2011), which is also the contention of this thesis. Nevertheless, this may be because corporate competitions seemed to have evolved into a new form with the addition of corporate citizenship and corporate responsibility (Hess *et al*. 2002).

2.2.3 Current Trends in CCI

Nevertheless, as competition took a new turn in the market place, a company’s ability to have competitive advantage now depends on their ability to adjust to the new trend.

Consequently, in the spate of global desire for morality and social responsibility in industries, businesses were oblige to respond to the increasing demand for a high standard of corporate behaviour from stakeholders and as a result had to develop various CSR programmes. Accordingly CCI became incorporated into CSR programmes and are managed as part of CSR activities (Moon & Muthuri, 2006). In addition, as consumers were prepared to trade-off their desire for low-priced goods with products of socially responsible organisations, managers' responsibility to maximise shareholders' wealth went beyond the traditional strategy of increasing profit or improving product quality and gradually incorporated responding to social responsibility obligations applicable to the industry, since failure to do this may negate other efforts to maximise shareholders' wealth (Dunfee, 1998). In other words to achieve the value maximisation concept, management can no longer ignore the interests of the other stakeholder groups (Jensen, 2001).

Consequently, it appears CCI has in the last few decades become more of a corporate strategy than philanthropic and/or participation in community development, to enhance good corporate image. Today corporations build community programmes, mostly based on their core competencies, into their strategic goals. Hence such programmes, described as philanthropic activities in the past are now viewed as opportunity to enhance reputation, develop business ideas and to find new markets for company products (Kanter, 1999). Evidence exists that reputations built up in this way pay off at the end of the day, for example Smith & Stodghill (1994, cited in Hess *et al.* 2002) gave an account of how McDonalds was spared by the 1992 South Central Los Angeles rioters who caused great harm to other business outlets but spared all McDonalds 60 outlets in the area. The executives of the company laid claims to their long-term community involvement activities as the reason they were spared harm.

In other words, the corporations tend to benefit more from the reputation built from CCI than the community itself. Furthermore, corporations view reputation-assets as having the advantage of easy penetration into foreign markets. Consequently, CCI is seen as inevitable as businesses penetrate foreign markets, such programmes help build relationships with the local government and the community and assist in understanding the culture of the society in which the company operates (Moon & Muthuri, 2006). This in turn is hoped to encourage acceptability and enhance the marketing initiatives of the company. For instance, for corporations in the petroleum and chemical industries, community involvement is an inevitable requirement in order to operate effectively, because the local community itself demands the provision of certain amenities such as education and health care (Wasserstrom & Reider, 1998).

2.2.4 The Need to Report CCI

Some studies such as Adams *et al*. (1998); Campbell (2000); Deegan (2002); Bebbington *et al.* (2008a) argued that some corporations engaged in social activities as a result of their express commitment to comply with CSR expectations while others did to gain the licence to operate safely in their local community and thus disclose such information to signal adherence to societal expectations (Deegan, 2002). Nevertheless KPMG (2008) reported that CSR reporting has become the norm rather than the exception among the largest companies of the world. Similarly KPMG (2011) reported that most companies now view CSR reporting as more of enhancing business innovation and financial value than being a good corporate citizen.

Reporting CCI in annual reports along with other CSR activities therefore, appear to be much more than satisfying the information need of the local communities, but rather that of satisfying the shareholders' aspirations about corporate social initiatives amidst worries that some such activities conflicts with shareholders' interest of profit maximisation. Moreover, KPMG (2005) documented that CSRD has moved from mere reporting of financial information in compliance to regulatory standards to reporting information considered relevant and material to the organisations' investors. The survey indicated that the content of CSR reports in the early 1990s has been on environmental, health and safety and employee concerns, but now covers community involvement among other things. Arguably, reporting CCI activities might be due to the fact that managers are under pressure to bridge the information gap with investors (as the financial stakeholders) and also prove the moral justification for community programmes, while stating the cost and benefits. In this way the investors will appreciate the moral justification for CCI programmes undertaken by the company and be able to compare them with their competitors.

In other words, by reporting CCI in annual reports, managers are assured of not only building a good reputation for the corporation among its investors, but also of furthering its competitive advantage in the market place. This is suggestive of the fact that CCID could be a communication strategy adopted by corporations either as a form of measuring as well as signalling their CCI achievements in a bid to enhance reputation and thus maximize shareholders' wealth or a way of paying lip service to the course of CSR expectation from society.

2.3 Previous Studies on CCID

Several earlier studies on CSRD in annual reports examined the disclosure of CSR as a whole (Ingram, 1978; Abbott & Monsen, 1979; Anderson and Frankle, 1980; Cowen *et al.*, 1987; Epstein and Freedman, 1994). A few others concentrated on particular categories of CSR information, such as: human resources disclosure (Elias, 1972; Acland, 1976; Hendricks, 1976; Lim & Dallimore, 2002); environmental and pollution disclosure (Belkaoui, 1976 and 1980; Freedman and Jaggi, 1986), while empirical work on CCID was not documented among the earlier works on CSRD at all. Indeed, studies on CCID are only recent; one such is by Campbell *et al.* (2006) which investigated the pattern/frequency and cross-sectional effect of CCID. It is therefore the motivation of this thesis to rectify this omission by carrying out a detailed evaluation of the phenomenon.

Although a plethora of literature (for example Cowton, 1987; Campbell *et al*. 2002; Brammer & Millington, 2004 & 2005; Campbell & Slack, 2007; Choi & Wang, 2007; Patten, 2008), attempted to investigate corporate charitable/philanthropic giving as indication of CCI, it is the argument of this thesis that such a gesture has merely narrowed the definition of CCI to cash gifts. Therefore such investigation is not only deficient, but provides a misleading picture of the overall nature of CCI as enumerated in Section 2.2.1 above. Besides, these studies only investigated the significance, motivation and management of corporate charitable/philanthropic giving in the organisational context and not the motivation for or the significance of its disclosure in annual reports. Therefore as far as the researcher is aware, Campbell *et al.'s* (2006) study appears to be the first documented work in this area.

However despite the fact that the community has been identified as one of the important members of the stakeholder system (Clarkson, 1995; Altman, 2000), there remains a dearth of literature on CCID. The first mention of community involvement by business organisations was in 2002 (Hess *et al*, 2002), although this did not discuss disclosure; nevertheless Branco and Rodrigues (2008) attempted to include an analysis of CCID within, but not separately to, general CSRD disclosures. However earlier studies also have examined CCID along with other social disclosures (Guthrie and Parker, 1989; Campbell, 2000), while others have only mentioned it as a CSR theme (Patten, 1991). Most studies on CSRD have concentrated on other aspects of CSR, such as human resources, pollution, and so on.

In an earlier study, Epstein and Freedman (1994) conducted experiments to examine CCID along with, but not separately to, other CSR themes; their results indicated that nearly half of the respondents wanted CCI disclosed in the financial report, and another quarter wanted it not only disclosed but also audited. Over 60% of the respondents also required that corporations disclose the social impacts of their activities on the community groups that they affect. Cowen *et al*.'s (1987) study found that CCID responded to company size and industry type with 64% of companies (mostly in the chemical industrial sector) disclosing it. In contrast to Cowen's findings however, Patten (1992) found that CCI is disclosed in lower volume than other categories of social disclosures.

However the study by Campbell *et al.* (2006), investigating the reporting behaviour of companies over a longer period, found that volume and frequency of CCID is positively associated with high public profile companies, consistent with Cowen *et al.* (1987). These studies however only indicated the demand and frequency of CCID and not its reality and value relevance to investors. CCID as seen in annual reports is by its very nature polysemic – that is, its disclosure in annual reports is open to multiple interpretations. It could be taken to be one of the CSR issues as discussed in the preceding section or simply as corporate response to the clarion call by government to get involved in community developments as discussed in section 2.2.2. If this later argument is accepted however, the question is; why disclose it in annual reports? Could it be; to measure the extent of the company's involvement in community development or targeted at the company's investors or the community-stakeholder groups.

A tenable interpretation of CCID in annual reports could be, as legitimacy theory predicts, a form of licence to operate in a particular community (Adams *et al.* 1998; Campbell, 2000 & 2003; Deegan, 2002; Deegan *et al*. 2002) or better still, according to stakeholder and agency theory, a form of accountability to the community-stakeholder (Adams, 2004; Cooper and Owen, 2007). Whatever the case, the contention of this thesis is that CCID is a communication strategy of some sort with deeper meaning and requiring extensive and qualitative evaluation, which may include adopting a literary theoretical framework as suggested by Macintosh *et al.* (2000); Macintosh and Baker (2002); Crowther (2002); Yusoff and Lehman (2009); Davison (2009 & 2011). On the other hand, it could be merely rhetoric according to Aras and Crowther (2009).

Nevertheless, to investigate a polysemic topic such as this, one cannot disregard the role of theory. Theories such as political economy, legitimacy, stakeholder, agency, signalling and so on, have been explored by various scholars as explicator for the CSRD phenomenon generally (although inconclusively). However, the motivation for corporation's involvement in community development and the disclosure of it in annual reports is under-explored. Even though it is tempting to conclude on these theories as also probable explicators for corporate community involvement and disclosures, such conclusions will be spurious without a theoretical evaluation of the practice and policies of community involvement on its own. In effect the lens of theory is inevitable if we must explore the reality of, and the motivation for, this information not only from management's point of view but also from the point of view of the recipients of the information.

Consequently following the assertions of Bebbington *et al.* (2008b) and Gray, *et al.* (2010), an evaluative approach is adopted in this thesis, while exploring multiple theories, most of which are already explored in isolation in CSRD studies, in order to achieve an in-depth study and analysis of the phenomena. However, for the proper positioning of the current study it is first necessary to highlight the empirical issues in CSRD literature generally. Nevertheless as it is not the intention of the researcher to provide a comprehensive review of all empirical issues in CSRD literature, four main areas of relevance to the current study were identified and are discussed in the next section.

2.4 Empirical Issues in CSRD Literature

2.4.1 Why Disclose CSR Information in Annual Reports?

The question as to why report on social and environmental activities has generated volumes of conflicting literature over the last three decades, each viewing the issues from differing perspectives. Various reasons have been given for the motivation of social and environmental reporting, although early empirical works between 1971 and 1980 (Elias, 1972; Bowman and Haire, 1975; Acland, 1976; Hendricks 1976, Abbott and Monsen, 1979; Trotman, 1979; Anderson and Frankle, 1980; Belkaoui, 1976 & 1980) revealed that only large corporations make social disclosures with environment and human resource information receiving more attention than others (Matheaw, 1997).

However the momentum dropped in the 1980s as a result of less government intervention hence only a few studies were documented such as Freedman and Jaggi, (1986) and Cowen *et al.* (1987). The empirical work picked up again in the 1990s following increased criticism of corporate governance and social responsibility of multinationals consequent upon major disasters like the Alaska oil spill of 1989 – with studies like Patten (1991& 1992); Epstein and Freedman (1994); Gray *et al*. (1995a&b); Gamble *et al.* (1996); Hackston and Milne (1996); Deegan and Rankin (1996); Walden and Schwartz (1997); Adams *et al*. (1998); Campbell (2000) – and was further fuelled by the collapse of high profile companies like Enron, WorldCom and Xerox following accounting scandals in the early 21st century (Kolk, 2003). Studies in the early 21st century include; Lim & Dallimore (2002); Deegan (2002); Deegan, Rankin, & Tobin (2002); O'Donovan (2002); Holland and Foo (2003); Adams (2004); Campbell (2004) among others. More recent work includes Galbreath *et al*. (2008); Burritt & Schaltegger (2010); Campbell *et al.* (2010).

Nevertheless factors identified in the literature as influencing CSR reporting include; size (Patten, 1991 & 1992; Gray *et al.*, 1995b; Hackston and Milne, 1996; Adams *et al.*, 1998; Campbell *et al.*, 2006; Garcia-Castro *et al.*, 2010); industry membership (Patten 1991 & 1992; Hackston and Milne, 1996; Campbell *et al.*, 2006) and country of domicile (Adams *et al.*, 1998; Ahmad & Sulaiman, 2004; Belal and Owen, 2007). These studies provided rich evidence supporting the fact that company size, industry memberships and the country the corporation is operating from, all play a major role in determining the extent and variety of CSR themes disclosed.

Other factors identified but with inconclusive findings are; economic performance (Belkaoui, 1976; Ingram and Frazier, 1980; Anderson & Frankle, 1980; Shane and Spicer, 1983; Ullmann, 1985; Gray *et al.*, 1988; Belkaoui and Karpik, 1989 Hasseldine, Salama and Toms, 2005; Galbreath *et al.*, 2008), which is discussed in greater detail in the next section; leverage (Belkaoui & Karl 1977; Tsamenyi *et al.*, 2007; Mangena & Pike, 2005; Galbreath *et al*, 2008); listing age (Haniffa and Cooke, 2002; Li *et al*, 2008), and corporate governance (Forker, 1992; Ho and Wong 2001; Wilson and Lombardi, 2001; Haniffa and Cooke, 2002; Galbreath *et al.*, 2008).

Moreover another strand of literature suggested that reputation management is the key motivating factor for CSR reporting, (Tom 2002; Hasseldine *et al.*, 2005; Belal & Owen, 2007; Bebbington *et al.*, 2008a). For instance Tom (2002) found CSR reporting as having an association with corporate environmental reputation. Similarly Bebbington *et al* (2008a) asserted that corporations employ CSR reporting as a powerful medium to build a good stakeholder perception of their CSR activities and thus develop and manage social and environmental reputation. They argued that CSR reporting could be seen as part of the process of "reputation risk management" (Bebbington *et al.*, 2008a:337) and that CSR reporting might be a strategy of managing particular stakeholders' perceptions and may thus be used to "derive stakeholder maps and/or typical responses aimed at particular stakeholders" (p.353). Based on these perspectives therefore, they studied Shell's CSR report for 2002, and documented evidence pointing to the fact that the report was aimed at managing Shell's reputation, noting in particular Shell's "*reputation tracker survey"* (p.347) and the specific mention of Shell's reputation in several places in the report. Their findings also linked social and environmental performance to management quality and how these two jointly linked to financial performance. These issues are discussed further in the next sub-section.

However the issue of whether it should be mandatory or voluntary is yet another area of concern. There is yet to be a global mandatory reporting requirement as we have for financial reporting. While some countries have attempted to introduce frameworks for reporting in the companies act, others have not, and some have restricted reporting to specified companies[1]. Nevertheless, efforts have been made to encourage reporting generally in Europe and other parts of the world, for instance the European Commission published a Green Paper on CSR (European Commission, 2001) and launched a multi-stakeholder forum for CSR in 2002.

The accounting profession, on the other hand, does not seem to have accepted the social reporting as part of accounting and as a result no standards or guidelines for social reporting have yet been issued by the profession. The commonly used guidelines to date are the AA1000 assurance standard of the Institute of Social and Ethical Accountability (AccountAbility, 2003) and the G3 of the Global Reporting Initiatives (GRI, 2006). These reporting guidelines have been developed by two independent organisations but as yet to receive universal acceptance. The question is 'if the accounting profession – the regulators of the stewardship and accountability process for economic performance – have remained aloof of social reporting, then why is this information disclosed in the annual report which was originally intended for economic performance reporting and how genuine is this report?' These are the empirical question that is yet to be answered and from which the current study in this thesis draws its motivation.

2.4.2 CSR /Economic Performance/CSR Reporting: Is there any Link?

Some earlier studies, in an attempt to explain the reason for CSR reporting, have tried to establish whether there exists any link amongst CSR performance, economic performance and CSR reporting (Belkaoui, 1976; Ingram and Frazier, 1980; Anderson & Frankle, 1980; Shane and Spicer, 1983; Ullmann, 1985; Gray *et al.,* 1988; Belkaoui and Karpik, 1989). The results of these studies however lack consistency as they all came up with diverse results with some having no correlation at all and others having either a positive or negative correlation (see Ullmann, 1985 for detailed analysis of these studies). These inconsistencies were attributed to lack of uniformity in the theoretical and conceptual framework in explaining and analysing the relationships among the variables and the use of deficient empirical data (Ullmann, 1985; Belkaoui and Karpik, 1989).

[1] In the UK, for instance the Companies Act 2006 recently requires listed companies to include in the director's report the impact of its operation on its environment and community of operation; however community involvement activities remains a voluntary disclosure even in the UK as there seem to be no legal implication for non-disclosure.

Ullmann (1985) approached his investigation using a three-dimensional model – stakeholder power, strategic posture and economic performance – and came up with some very interesting results. The study revealed that corporations with active strategic postures exhibit a high level of social performance and disclosure when stakeholders' power is high and economic conditions are good as against when stakeholders' power is low. Conversely corporations with passive strategic posture remain low in social performance and disclosures even when stakeholders' power is high but economic conditions are low; in such circumstances the corporations are seen to disclose only the mandatory social information.

However, a more recent study by Magness (2006) confirmed Ullmann's assertions that when stakeholders' influence is strong, companies with high strategic posture disclose more CSR information than those with low strategic posture but was unable to link this behaviour with good economic performance. Similarly Mittal *et al.* (2008) were unable to establish any link between CSRD and the economic performance of Indian firms. Nevertheless the study revealed that market value was significantly associated with CSRD indicating market reaction to CSRD. However another Indian study by Mishra and Suar (2010) found that companies listed on the stock exchange and with strong stakeholder influence have high financial performance over a three-year sample period. Although this study is not consistent with Magness (2006) and Mittal *et al*. (2008), the study seems to support the "virtuous circle" argument of Waddock & Graves (1997a) and Nelling & Webb (2009).

Waddock & Graves (1997a) provided evidence that a consistent disclosure of good CSR performance led to increased financial performance, while a continuous increase in financial performance led to improved social performance. Their argument was that a consistently positive customer perception of the company's image would not only have consequences on financial performance, but a continuously good financial performance should also lead to more investment in CSR activities. Nevertheless this study was found to be fraught with irregularities resulting from heterogeneity bias[2] and the problem of endogeneity[3] (Nelling & Webb, 2009; Garcia-Castro *et al*. 2010).

Nelling & Webb (2009) and Garcia-Castro *et al*. (2010) conducted similar investigations with similar data as that used in Waddock & Graves (1997a), but controlled for the effect of unobserved heterogeneity bias and the problem of endogeneity by using a panel dataset and panel study regression models. Their results indicated that other characteristics that are ordinarily difficult to measure (such as good management quality, ethical orientation and so on) seems to influence both social performance and financial performance simultaneously. Hence the supposed relationship observed by previous authors between social and financial performance variables was actually influenced by unobserved variables. Consistent with this finding is the study by Crowther (2002), who, adopting a literary theory perspective investigated the binary opposition between corporate reporting and environmental reporting using the semiotic stage and found that the financial and environmental dimensions of corporate performance cannot be dissociated from one another. A company performing well financially was found to be performing well in both dimensions.

One conclusion that may be deduced from these arguments is that a company's performance – both social and financial – has some link with good management quality and practice as argued by Bebbington *et al.* (2008a). Furthermore other unobservable firm specific characteristics should be taken into consideration before drawing conclusions of a causal relationship between economic/social performance and social reporting (Garcia-Castro *et al*. 2010). It is therefore the objective of this curerent study to take these issues into consideration in the course of the study.

2.4.3 Issues on the Quantity versus Quality of Disclosures

In the last decade, it seems debate has actually shifted from the question of whether to report on CSR activities and fresh concerns are being expressed about the scope and

[2] Heterogeneity bias refers to the bias in regression results due to the omission of firm-specific variables that are unobservable or very difficult to observe (Wooldridge, 2009).

[3] Endogeneity refers to the existence of an endogenous explanatory variable in a model. Endogenous variables are those that are correlated with the error term due to an omitted variable or measurement error (Wooldridge, 2009).

quality of disclosures as well as the type (qualitative or quantitative), the length or quantity and authentication of the reports. This could probably be borne out of increased awareness and reporting of it in annual reports. The debate on these issues, basically, centres on the best measure of CSRD generally, that is whether to measure CSRD in terms of its quantity (amount or length) or its quality and if the latter, what should be the best measure for quality. Nevertheless variety of definitions and measurement of disclosure quality exists in the literature, while much debate has taken place on the best way of measuring disclosure quality (Botosan, 2004; Beattie *et al*, 2004; Beretta and Bozzolan, 2004 & 2008).

Consequently various methods of measurement have been used in literature as a measure of disclosure quality, while some have used analyst ratings (Toms, 2002; Hasseldine *et al.*, 2005); others have constructed their own index (Walden and Schwartz, 1997; Botosan, 2004; Beattie *et al.*, 2004; Freedman and Stagliano, 2008). Beattie *et al.* (2004) categorized the different approaches used in literature into two, namely subjective analyst ratings studies and semi-objective studies. Studies adopting semi-objective approaches include thematic content analysis studies, readability studies, linguistic analysis studies and disclosure index studies (see Beattie *et al.*, 2004:208-213) for detailed review of these studies and approaches.

Furthermore in measuring CSRD some scholars (Guthrie and Parker, 1990; Gray *et al.*, 1995b; Hackston and Milne, 1996; Guthrie *et al.*, 2003 & 2004) included the quantity of disclosure among other criteria, such as the location and evidence, while some authors simply used quantity as a proxy for quality. However these authors did not distinguish between the quantity and quality of disclosures, arguing that the quantity of information is capable of influencing the quality. On the other hand, some other scholars (Walden and Schwartz, 1997; Freedman and Stagliano, 1992, 1995 & 2008; Tom, 2002; Botosan, 2004; Beattie *et al.*, 2004; Hasseldine *et al.*, 2005) distinguished between quality and quantity of disclosures arguing that quantity alone will not be an adequate measure of quality and that measuring the quality of disclosure is much more important than the quantity as the quality conveys the meaning and importance of the message.

To this end, Beattie *et al.* (2004) argued for the development of a comprehensive disclosure profile that could serve as a practical tool for measuring disclosure quality and suggested a four-dimensional framework for measuring quality, namely, the amount of disclosure spread across topics and three attributes of the information, namely, historical/forward-looking; financial/non-financial and quantitative/non-quantitative while describing the quality of narrative disclosures as a complex and "*multi-faceted concept"* (p.227). In addition they introduced a computer-assisted methodology for the applicability of the framework. Arguably however, while commending the holistic approach of Beattie *et al.*, (2004), it is instructive to note that their approach, apart from the introduction of computer-assisted methodology, is not entirely different from previous methods of measuring social disclosure quality documented in extant literature. For example Guthrie and Parker (1990); Gray *et al.* (1995b); Hackston and Milne (1996); Guthrie *et al.* (2003 & 2004) all included in their measurement of social disclosure, the volume of disclosure spread across theme, the financial/non-financial and quantitative/non-quantitative attributes, while Walden and Schwartz (1997); Freedman and Stagliano (1992, 1995&2008) also considered the timing (i.e. historical/forward-looking attributes) in the construction of their index.

Accordingly Botosan (2004) suggested that as there are no generally accepted frameworks of disclosure quality, researchers could employ the guidelines provided by the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) (IASB, 1989; FASB, 1980), arguing that such guidelines gives a better foundation for the development of a framework of disclosure quality. The IASB and FASB stated that information disclosed in annual reports can only be useful to economic decision makers if they possess the attributes of: (1) understandability, (2) relevance, (3) reliability, and (4) comparability. To this end Botosan (2004) offered a definition of quality as; Quality = f (understandability, relevance, reliability, comparability), arguing that since this framework is produced by the standard setters, it is reflective of a more generally accepted definition of disclosure quality.

However, even if we accept Botosan's framework, the operationalization of these attributes becomes an issue as observed by Hooks & van Staden, (2011), who, adopting Botosan's approach, found that although it was possible to assess the understandability, relevance and comparability of the information, the reliability was very difficult to assess. Consequently, while some studies have continued to raise fundamental questions as to the quality and authenticity of CSR reporting (Aras and Crowther, 2009; Burritt &

Schaltegger, 2010; Cho, Roberts, & Patten, 2010), others have examined it from the point of view of stakeholders concerns, thus examining a cross-country and developing economy comparison (De Villiers & van Staden, 2010) and its relationship with accountability (Adams, 2004; Cooper and Owen, 2007), while other scholars have therefore called for a literary approach to examining the reliability of the information (Crowther, 2002; Bebbington *et al.,* 2008a; Aras and Crowther, 2009; Yusoff and Lehman, 2009; Davison, 2011).

These scholars argued that to investigate the reliability and reality of disclosures of this nature, it should be subjected to textual analysis which is an active way of decoding the messages in the text by the reader. Bebbington *et al.* (2008a:353) therefore encourage social disclosure researchers that the *"... focus on linguistic strategies, ... , may be especially appealing if analysis of reporting moves towards examining discourses rather than quantitative measures of disclosure".* It is therefore the motivation of this current study to assess the reliability and reality of CCID using a literary approach.

2.4.4 Theoretical Issues

In recent times, the volume of literature on CSRD has focused on the analysis of CSRD as to its relevance and the rationale of its provision. Consequently a number of theories have been examined in literature as possible explanations for the disclosure of social information. Such theories include political economy of accounting theory (Cooper and Sherer, 1984; Tinker, 1980; Campbell, 2000); legitimacy theory (Guthrie and Parker, 1989; Adams *et al.*, 1998; Campbell, 2000 & 2003; Deegan, 2002; Deegan *et al.*, 2002; Campbell, Craven and Shrives, 2003; Bebbington *et al.*, 2008a); stakeholder theory (Collison *et al.*, 2003; Smith, Adhikari and Tondkar, 2005; Galbreath, 2006; Cooper and Owen, 2007) and signalling theory (Toms, 2002; Hasseldine *et al.*, 2005;). Theories like agency theory have also been tested in the literature (Ness and Mirza, 1991) but it's possible relationship to other theories in explaining CSRD is yet to be established.

However there has been no consensus among scholars as to the theoretical explanation for the disclosure of this CSR information. The argument has been that firms are either responding to the information demand of stakeholders or only reporting in order to legitimise their activities (Deegan, 2002; O'Donovan, 2002). Yet a range of other papers have examined CSR reporting from fresh and differing ideologies and theoretical frameworks such as Reputation Risk Management hypothesis – RRM (Bebbington *et al.*, 2008a&b; Unerman, 2008; Adams, 2008); neo-institutional theory perspective (Ball & Craig, 2010) and literary theory perspectives (Crowther, 2002; Yusoff and Lehman, 2009; Davison, 2011).

Bebbington *et al.* (2008a&b); Unerman, (2008) and Adams (2008) explored the Reputation Risk Management (RRM) hypothesis as an alternative to explaining CSRD, and argued that an integration of legitimacy, stakeholder and RRM theses might be able to explain the CSR reporting phenomenon. They described social and environmental responsibility (CSR) reputation as a "*reputation risk*" (Bebbington *et al.*, 2008a:340) that is capable of being damaged and argued that to develop and manage CSR reputation, it is essential for corporations to build a good stakeholder perception of their CSR activities, and a very powerful medium to achieve this, they opined, is through CSR reports. On the other hand Ball & Craig (2010) explored the neo-institutional theory perspective as a possibility of a more complete theory in understanding the phenomena. Using the analytical schema proposed by Lounsbury (1997, cited in Ball & Craig, 2010), they argued that gaining a better understanding of organisational changes brought about by response to social and environmental issues might help develop a normative perspective of the CSRD phenomenon, in other words, looking from the organisation change perspective.

Contrary to these views however is the literary theorist whose arguments centre on identifying the signification of these reports from the point of view of the targeted audience. Previous studies (Macintosh *et al.*, 2000 and Macintosh and Baker, 2002) had drawn on radical semiotics and Baudrillard's orders-of-simulacra theoretic to investigate the reality of accounting information and concluded that a literary theory perspective gives a different view of the nature of accounting and accounting reports. Consequently Crowther (2002); Yusoff and Lehman (2009) and Davison (2011) employed literary theory and concurred that literary theories like semiotics are very useful in making sense of corporate and social reporting practices. However Gray *et al.* (2010) argued that although each of the theoretical lenses, to a certain degree, offers some insights and understanding of the phenomena, but each of them on its own will fail to fully explain the phenomena of CSR reporting and therefore called for theoretical openness.

2.5 Chapter Summary

This chapter sets out to provide the background to the study and therefore begins with a comprehensive definition of CCI. The chapter proceeds with a brief history of the development of the phenomenon in the UK and a review of existing literature on CCID in annual reports. The review revealed a conspicuous gap in literature as there is very little extant literature on the subject thus necessitating a general review of CSRD literature in order to identify empirical issues in social disclosures generally and thus put the current study into proper perspective. Nevertheless a general review of the CSRD also revealed that, although the phenomenon as a recent development in accounting literature has generated a lot of differing literature, it has remained an under-explored area of accounting disclosures (Bebbington *et al.*, 2008b). Therefore given the volume of literature and contentious and diverse empirical issues on the subject, only empirical issues in CSRD literature considered relevant to the current research problems were identified and discussed in this chapter.

These discussions however raised some fundamental questions/issues which this study intends to address: first, is there any real motivation for community involvement apart from being a CSR theme? Second, does the global demand for CSR have any effect on the disclosure of CCI in annual reports over the years? Third, can value maximization strategy be enhanced by reporting on the community activities undertaken by the company? Fourth, what is the value relevance of this piece of information to the target audience of annual reports – the investors? Fifth, is CCID as reported in annual reports a true reflection of CCD? Or are they mere signals of adherence to societal expectations? Sixth, is there really any active involvement in community development? Seventh, what is the effectiveness of multiple theoretical approaches in providing insight into CCID phenomena?

These questions/issues provided the basis for the theoretical framework for this study which is the focus of the next chapter.

Chapter 3: Theoretical Framework

3.1 Chapter Overview

As discussed in the previous chapter, CSRD as a recent phenomenon in accounting literature has generated a lot of conflicting views. Over 30 groups of theories have been explored at one time or another by different authors as possible explicators for CSRD in annual reports (Thomson, 2007, cited in Gray *et al.*, 2010). However as it is not within the remit of this thesis to provide a comprehensive review of these theories, the theories reviewed in this chapter are limited to four key theories while introducing a literary theory (semiotics) which is yet to gain prominence in social accounting literature. The four theories – legitimacy, stakeholder, agency and signalling theories are considered key/important to the current study because they have been explored more than others but inconclusively in the CSRD literature. In addition since their application as single theories in previous CSRD studies have yielded inconsistent results (discussed later in the chapter), the researcher is of the opinion that combining them as a meta-theory might be more effective. The chapter begins with a brief introduction of the place of theory in explaining CSRD generally and CCID in particular and the need for theoretical openness. The theories were discussed in the light of previous studies that have used them in CSRD investigation in order to gain better understanding of the phenomenon and the applicability of the theories to the phenomenon of CCID. The inter-relationship of these theories is thoroughly explored and discussed, while the chapter ends with relevant propositions that could be deduced from the review of literature and theories.

3.2 The Need for Theoretical Openness

Theory was simply defined as *"an explanation of observed regularities"* by Bryman (2008a:5). However Gray *et al.* (2010) gave a broader definition and importance to theory in social accounting when they expressed theory as *"a mental state ... that determines, inter alia, how we look at things, how we perceive things, what things we see as being joined to other things and what we see as 'good' and what we see as 'bad'"* (Gray, *et al.*, 2010:6). Furthermore in their heuristic approach to theorisation in social accounting studies, Gray *et al.* (2010) argued that with the complexities with which social accounting has been characterised (Bebbington, *et al.*, 2008a&b), the application of a single theory is likely to be imperfect and incomplete, while the overlap and intersections between theories "*may lead to a more intelligent debate*" (p. 39) of the phenomenon, thus echoing (Bebbington, *et al.*, 2008a&b). Consequently a total of five theories are examined in this thesis. The theories are discussed from two perspectives: first, those that are deterministic by nature, that is those theories that may be explored in order to obtain possible explanation/motivation for CCID – these are legitimacy, stakeholder and agency theories; and secondly from the cognitive[4] perspective, that is those theories that may be explored to examine the reality and the effective communicative power of the disclosures – these are signalling and semiotic theories.

The legitimacy and stakeholder theories have being extensively explored in literature but are inconclusive as definite explicators for CSRD. They have been included in this thesis to serve as foundations to understanding CCID. The other three theories – agency, signalling and semiotic theories – have been sparsely explored in literature but are explored in this thesis following the assertion of Bebbington *et al.* (2008b) that there is the need for "theoretical openness" (p2) and the use of multiple theories in explaining the motivation of CSRD. The relationship of these theories to one another was extensively explored and their relevance and adequacy in explaining the motives behind CSRD and possibly CCID are discussed.

Therefore in order to achieve a systematic review of these theories and to establish if any relationships whatsoever exist between the theories, the researcher adopted the ideology expressed in Morris (1987). Morris asserted that where two theories deal with the same subject, their relationship can best be established by examining their underlying assumptions. According to him four possible relationships may emerge; they may be:

[4] While it is not the intention of the researcher to discuss these theories within the premise of determinism – which states that every human behaviour is brought about by various stimuli impinging upon him (Bandura, 1978); and cognitive theory – which is primarily concerned with the development of a person's thought process and how this influences his understanding and interaction with the world (Bandura, 1988), the terms (deterministic and cognitive) have been used in this thesis to categorize the theories discussed in this chapter in order to establish their interrelationship and how they might be employed to explain certain circumstances surrounding the corporation/society relationship and thus gain some insights into the veracity of CCID.

- Equivalent – sharing the same ideas;
- Subsets – one implying the other;
- Consistent – one confirming or complementing the other;
- Competing – one contradicting the other (Morris 1987, p49).

Morris suggested that the best approach would be to investigate the necessary and sufficient conditions for each theory and compare them with one another. Only then can we say if they are indeed equivalent, consistent or competing. Accordingly this section discusses the assumptions upon which these theories are based in the light of studies that have examined them and the way they have been applied in the literature and how the theories may enhance our understanding of CCID. The theories will first be discussed in turn pointing out the key features in them and how they have been applied in the literature in relation to CSRD, while drawing on possible links to explaining CCID. The last section will then discuss the relationship of the theories to one another and any link whatsoever that may exist between the theories and CCID. With such a comprehensive conceptual framework this study should contribute significantly to the understanding of the relationship between the various theories underlying CSRD and their relationship to CCID.

3.2.1 Legitimacy Theory Literature

The legitimacy theory appears to be the single most employed theory for the explanation of CSRD. This is because it has been widely used by scholars to provide explanation of management's motivation to disclose CSR information (see for example, Guthrie and Parker, 1989; Adams *et al.*, 1998; Campbell, 2000 & 2003; Deegan, 2002; Deegan *et al.*, 2002; Ahmad and Sulaiman, 2004; Cho and Patten, 2007; Bebbington *et al.*, 2008 a&b to mention a few). The term legitimacy is a general perception that the actions of the corporation are right or legal within a given system. The theory derives its origin from the idea that there exists an implied social contract between an organisation and the society in which it operates (Campbell, 2000) and that the corporation exists under that implied social contract (Dowling and Pfeiffer, 1975). In other words the activities of the corporation must be congruent with those of the social system in order for it (the corporation) to enjoy acceptability (Parsons, 1960; Dowling and Pfeiffer, 1975).

Legitimacy theory appears to give a better understanding of why corporations disclose CSR information, particularly when there are no regulations mandating the disclosure. Campbell (2000) argued that legitimacy theory may be linked to CSRD because it provides the corporation with an opportunity to prove that it is complying with its own side of the social contract, which is a way of justifying or legitimising its activities within the society. Furthermore, a number of other studies (Patten, 1991 & 1992; Deegan and Rankin, 1996 & 1997; Brown and Deegan, 1998; O'Donovan, 1999; Deegan *et al.*, 2002; Campbell, 2003; Bebbington *et al.*, 2008a) have provided evidence that organisations voluntarily disclose CSR information in an attempt to gain support from society and the general public and to portray the image of being socially and environmentally responsible. For example Patten (1992) was able to prove that environmental disclosures responded extensively to a legitimacy-threatening event like the Alaskan oil spill.

Legitimacy theory has also been employed to explain the disclosure of CSR information across countries. Adams *et al.* (1998) looked at disclosures in six European countries including the UK and found that even across countries legitimacy theory played an important role in explaining the motivation to disclose social information. Nevertheless, the authors pointed out that the theory was not able to explain the reason for variation in disclosure level across the countries examined. Despite this shortcoming however, Adams (2008) in her review of the study by Bebbington *et al.* (2008a) maintained that legitimacy theory remained the most superior theory for understanding CSRD. If this is so, then one may be inclined to agree to its suitability as an explanation of CCID.

Moreover, the tenet of legitimacy theory that a social contract exists between the corporation and the society should be more applicable to the corporation/community-of-operation relationship, more so when Deegan *et al.* (2002) in their study of BHP Ltd found that community concerns as measured by media attention may influence management decision to disclose social information. Consistent with this are the findings of Brown and Deegan (1998); O'Donovan (1999) and Campbell (2003). These studies provided evidence to show that, generally, CSRD are used to shape public opinion about the company. This is suggestive of the fact that disclosures are necessitated by management's intention to address societal concerns and as such legitimise the company's operation. One such concern is how well the corporation has contributed to the development of the community in which it operates. Nevertheless, Deegan (2007) has called for further development of the theory as a number of defects have been documented regarding its applicability for the explanation of CSRD.

Defects of legitimacy theory

Despite the claims of superiority by many scholars of legitimacy theory, the theory has been found not to explain managers' motivation to disclose social information in many instances. For instance the legitimacy theory failed to explain the motivation for social disclosure in BHP (Guthrie and Parker, 1990). Although this study was found to be inconsistent with an earlier similar study on US Steel by Hogner (1982), later studies also found some defects in the application of the theory. For instance Campbell (2000) found that there was variability in the volume of CSRD of Marks and Spencer between the regimes of one chairman and the other and therefore argued that managerial construct might be another factor influencing the company's behaviour towards CSRD.

Furthermore O'Dwyer (2002) also looking from the point of view of managers concluded that legitimacy theory has failed to explain the motive behind environmental disclosure in the Republic of Ireland as the 29 managers interviewed perceived that environmental disclosure has failed to fulfil a legitimising role but rather has been counterproductive. The findings revealed that stakeholders have often treated such reports with scepticism and cynicism, thus suggesting that the validity of such reports is questionable. Another study by Campbell *et al.* (2003) observed that companies which were expected to disclose more CSR information because of their vulnerability to criticism, according to legitimacy theory, were sometimes found to disclose less, while those with lesser exposure to criticism disclosed more. This is suggestive of the fact that legitimacy theory might not be the only explanation for CSRD.

Also evidence exists that the theory could not explain the reasons for differences in disclosures across countries (Adams *et al.*, 1998; Ahmad and Sulaiman, 2004). For instance while Ahmad and Sulaiman (2004) could not find sufficient support for legitimacy theory in Malaysia, which is an emerging economy, Adams *et al.* (1998) also documented disparity in the support for legitimacy theory in Germany and UK, which are both developed economies. Ahmad and Sulaiman (2004) found that disclosure level was low and only narrative thus providing limited support for legitimacy theory, while Adams *et al.* (1998) revealed that despite the high level of environmental disclosure by German and UK companies, legitimacy theory was not able to explain the motivation for reporting CSR information in both countries.

According to the study, while legitimacy theory might, to some extent, explain the motivation for reporting by German companies the theory could not explain the motivation for CSRD in UK companies. Nonetheless both countries disclosed a higher level of CSR information than Malaysia. In Germany it appeared that companies report on their social impact as a way of legitimizing their activities, whereas in the UK disclosure appeared to be a way of discouraging the government from enacting regulation in favour of social responsibility hence pointing to the political economy theory as an explanation for social disclosure in the UK. Adams *et al.* (1998) opined that this is a more complex situation and suggested the development of a more robust theory for more explanation. No wonder Bebbington *et al.* (2008a&b) expressed doubt as to the suitability of legitimacy theory in explaining CSRD arguing that the term should be used in a broader institutionalized concept of corporate activity rather than a narrow explanation for CSRD.

Hence, it is evident that legitimacy theory might not be able to explain CSRD in isolation, which is consistent with the assertions of Bebbington *et al.* (2008a&b) as summarized in Bebbington *et al.* (2008b) as follows;

"... we would also argue for the retention of a plurality of approaches and a multiplicity of lens through which to observe, explain and predict CSR practice. ... In summary, our view is that it is too early for theoretical closure in the analysis of CSR in favour of legitimacy theory. This belief is reinforced by the various reservations expressed about legitimacy theory as a refined lens of analysis." (Bebbington et al.*, 2008b:2-3)*

CSRD scholars therefore advocated the development of the theory as well as exploration of other theories. For instance, Guthrie and Parker (1990) recognised the need for a more robust theory to explain social disclosure. Deegan (2002 & 2007) pointed out the need for further development of theories for CSRD explanation while Bebbington *et al.* (2008b) argued that there is the need for "theoretical openness" and the use of multiple theories in explaining the motivation for CSRD. The researcher shares the views of these scholars since the phenomenon of CSRD is still evolving.

For instance, legitimacy theory posits that legitimisation is achieved when the corporation's activities are congruent with those of society and the corporation is able to meet societal expectations (Parsons, 1960; Dowling and Pfeiffer, 1975). Arguably however, meeting societal expectation would be dependent upon the perceptions of the social audience observing the corporation's legitimising actions as against what the corporation itself construed as legitimising (Wood and Jones, 1995; Chen and Roberts, 2010). In order to achieve legitimacy, therefore, a typical legitimisation strategy would be to adequately manage the perceptions of the social audience who confer legitimacy. In other words, for a better application of legitimacy theory in CSRD phenomena in general and CCID in particular, the researcher argues that there is the need to understand the role and position of the social audience in the corporation and the salience accorded to them by the corporation. The social audience for the purpose of this study is the community in which the corporation resides. This brings us to the discussion of stakeholder theory.

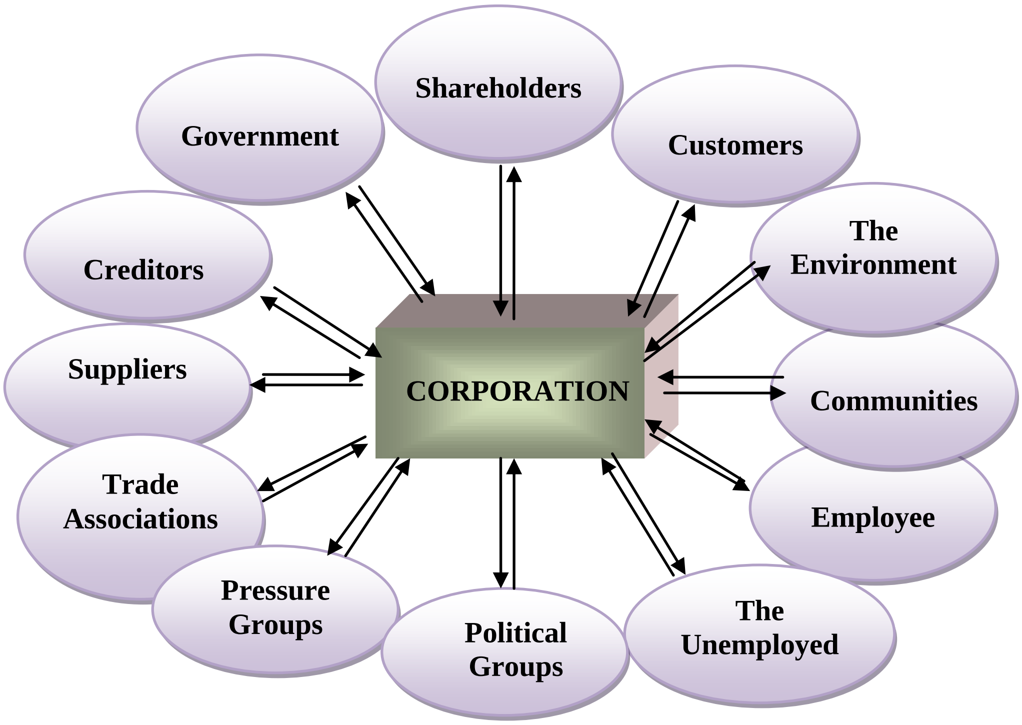
3.2.2 Stakeholder Theory Literature

Stakeholder theory has been extensively reviewed in the literature and various schools of thought have emerged on the subject (Freeman, 1984; Donaldson & Preston, 1995; Clarkson, 1995; Wood and Jones, 1995; Mitchell, Agle & Wood, 1997; Sternberg, 1997; Altman, 2000; Rowley & Berman, 2000; Jensen, 2001; Freeman & Phillips, 2002). It has been argued that stakeholder theory gives the theoretical support for the effective evaluation of CSR performance and disclosures and also forms the foundation for understanding the relationship that exists between a corporation and its stakeholders (Wood & Jones, 1995; Clarkson, 1995; Mitchell *et al.*, 1997; Rowley & Berman, 2000). The ability of stakeholder theory to properly define and explain the position of the community in the stakeholder system made it a very relevant conceptual framework for this study which lends itself well to establishing the importance of disclosing information regarding this group of stakeholders.

3.2.2.1 Who are a Corporation's Stakeholders?

The word stakeholder has been given various definitions by different stakeholder theorists. The Stanford Research Institute (SRI) defined stakeholders as *"those groups* *without whose support the organisation would cease to exist"* (SRI, 1963; quoted in Freeman, 1984:31). Freeman offered his own definition as *"any group or individual who can affect or is affected by the achievement of the organisation's objectives"* (Freeman, 1984: 46). A modification of these definitions by Clarkson (1995) states stakeholders as *"persons or groups of persons that have, or claim, ownership, rights, or interests in a corporation and its activities, past, present, or future. Such claimed rights or interests are the result of transactions with, or actions taken by, the corporation, and may be legal or moral, individual or collective"* (Clarkson, 1995:106). Clarkson's definition appeared to be more descriptive and may be presented pictorially as follows;

Figure 3. 1: Corporate Stakeholders



3.2.2.2 The Aim of Stakeholder Theory

The objective of stakeholder theory was to expand the roles and responsibilities of management from that of maximizing shareholders' wealth to include satisfying the needs and interests of other non-financial stakeholders (Mitchell *et al.*, 1997). Although the maximisation of shareholders' wealth was the traditional role of every corporation, today stakeholder theory is contending with this role. The theory argues that managers should take into account the interests of all the stakeholders of the corporation when making decisions. Jensen (2001) argued that a melding of the meaning of both value maximization and stakeholder theory is required as a necessary trade-off among the corporation's stakeholders group in order to achieve the long-term objective of maximising the firm value.

Arguably, stakeholder theory appears to be fundamental to understanding the nature of the relationships (the implied social contract) existing between corporations and their local community and to help uncover the rationale and reality of CCID (Wood and Jones, 1995). The theory posits that a corporation can benefit significantly from cooperating with stakeholder groups by incorporating their needs in the decision-making process. Galbreath (2006) provided empirical evidence that good management of the primary stakeholder especially corporate governance and employee management have a significant and positive effect on performance and corporate reputation.

3.2.2.3 The Criticism of Stakeholder Theory

The definitions of stakeholder theory however, have raised some fundamental questions in literature as to who really are the legitimate stakeholders of a corporation (Sternberg, 1997; Mitchell *et al.*, 1997; Jensen, 2001). Sternberg (1997) criticized the idea of *"transforming everyone into a stakeholder"* (Sternberg, 1997:3). Jensen (2001) argued that the idea of managers having to report to too many masters will lead to confusion. Sternberg (1997) pointed out that criteria like materiality, immediacy and legitimacy should be considered in determining who should really count as stakeholders. Consequently Mitchell *et al.* (1997) in an attempt to address this question developed an elaborate theory of stakeholder identification and salience. They argued that those who should really count as stakeholders should indeed possess some criteria. In their opinion, legitimacy should not be enough to qualify a group as a stakeholder as posited by other stakeholder theorists like Freeman (1984); Clarkson (1995) and Donaldson and Preston (1995). In addition to legitimacy, Mitchell *et al.* (1997) theorized that power and urgency are key factors that should also be considered when deciding who the stakeholders of a corporation are (Figure 3.3). They argued that managers ought to know what groups or entities in their environment have the power to influence the corporation and thus insisted that *"power and urgency must be attended to if managers were to serve the legal and moral interests of legitimate stakeholders"* (Mitchell *et al.*, 1997:882). In other words the stakeholders of a corporation should be those individuals or group of individuals possessing one or two or all three of the attributes: power to influence the firm, a legitimate relationship with the firm, and/or urgent claims on the firm (Mitchell *et al.*, 1997)

3.2.2.4 The Application of Stakeholder Theory

In the literature, many studies supporting stakeholder theory (Altman, 2000; Rowley & Berman, 2000; Smith *et al*, 2005; Neville, Bell & Menguc, 2005; Cooper and Owen, 2007) used it extensively to explain or support specific organisational behaviour and responses to their stakeholders and *vice versa*. Donaldson and Preston (1995) identified three types of uses: descriptive/empirical, normative and instrumental. Donaldson and Preston (1995) argued that stakeholder theory may be applied as a guide by managers in the management and operation of the corporation in such a way that the corporation is viewed as an "organisational entity" where all stakeholders benefit from the operation of the entity (descriptive use), while the normative application is where the corporation is seen as an ethical entity where things are done because it is the right thing to do. On the other hand an execution of a policy – for example community involvement activities, in order to avoid or achieve a specific reaction from the stakeholders is referred to as instrumental application of the theory, (Donaldson & Preston, 1995; 70-72). It is the instrumental application of the theory that is examined in this research. This will help to establish the link between it and legitimacy theory vis-à-vis their application to CCID.

Neville *et al.* (2005) argued that stakeholders' reactions to specific organisational behaviour may also be viewed as either instrumentally or normatively motivated. For example a withdrawal of investment or resources from a corporation because of lack of confidence in a new management structure may be viewed as being instrumentally motivated, in which case the investor is using his investment as an instrument to signal disagreement with the new management structure. Conversely they will be normatively motivated if the withdrawal is as a result of a perceived legitimacy gap (i.e. neglect of environmental responsibility) on the part of the corporation in which case the investors' reaction is a way of redressing the breach of the social contract in existence and as a result of the intrinsic value they placed on the community as a stakeholder group.

Wood and Jones (1995) pointed out that in order to achieve a better understanding of the legitimisation process, the question *"To whom does corporate social performance* *make a difference?"* (Wood and Jones, 1995:241) must first be answered. They describe this as the missing link in understanding the overall relationship between corporations and society. Nevertheless they opined that understanding the CSRD phenomenon from a stakeholder theory perspective involves identifying the particular stakeholder group involved. They therefore proposed a corporation/stakeholder model, where multiple stakeholders' expectations, effects, evaluations and behaviours are well defined. This, they argued, would allow for a better understanding of how the relationship between the corporation and the stakeholder arises in the first place and what led to the expectation gap being addressed by management through disclosures. The knowledge of such a relationship would lend itself to the development of relevant measures of investigation while taking into consideration the role of the stakeholder in setting expectations, experiencing the effect and evaluating the outcome (Wood and Jones, 1995).

Following from the above discussions therefore, to adequately establish the place of stakeholder theory in this research and hence identify suitable variables to investigate the reality and motivation of CCID, the role of the community in the stakeholder system will have to be viewed through the lens of Wood and Jones (1995) model as illustrated in Figure 3.2 below:

Figure 3. 2: Corporation/Community Stakeholder Relationship

Source: Adapted from "Stakeholder Mismatching: A theoretical problem in Empirical Research on Corporate Social Performance" Wood and Jones (1995).

For the purpose of this study, the stakeholder of interest is the community within which the corporation operates; therefore the community is responsible for establishing the expectation. Altman (2000) asserted that the corporations' responsibility to its community includes the improvement of the quality of life in its cities and towns for its employees and for the immediate area around its field of operation, and, potentially, for the groups or individuals that could be harmed by its operations.

It follows that if the corporation is aware of the expectation of the community, those expectations should be taken into perspective during the decision making process. This would help build a good relationship between the corporation and its community when the community begins to feel the effect of corporate action and is able to evaluate how well their expectations have been met. Freeman (1997) describes the relationship between corporations and their stakeholders as give-and-take. The corporation enjoys loyalty from the community stakeholder in return for meeting the expectations of the community. That is why a company receives negative reaction for any failure perceived by its stakeholders; the stakeholders would not hesitate to reward/punish a corporation when the corporation's actions meet/do not meet their expectations **(**Chan & Milne 1999; Rowley & Berman 2000).

3.2.2.5 Managing the Community as a Stakeholder Group

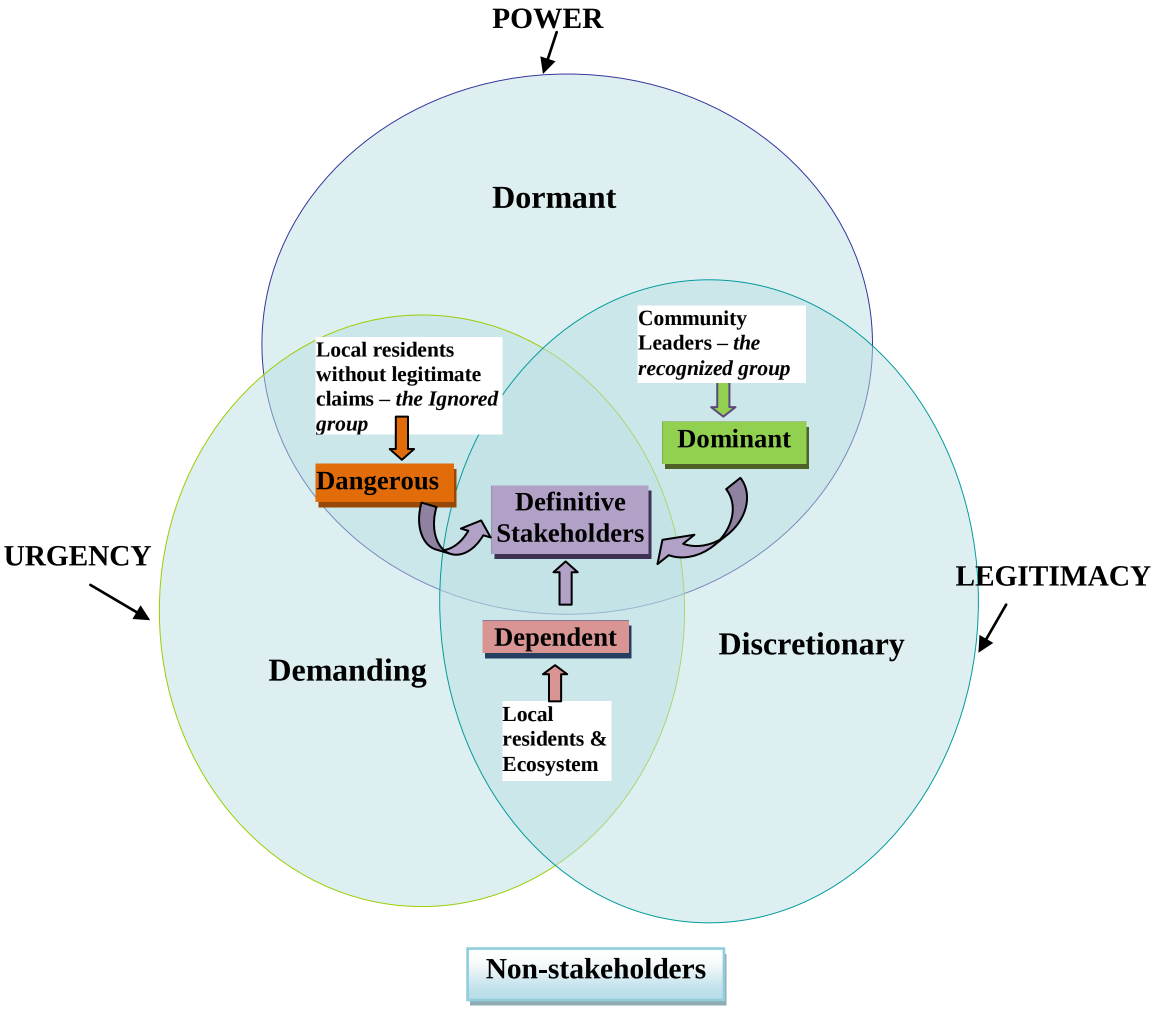
Extant literature (Mitchell *et al*., 1997; Altman, 2000; Smith *et al.*, 2005) defines the community stakeholder group as those located within the immediate vicinity of the corporation and thus has an implied social contract with the corporation as posited by legitimacy theory. Again since they may be affected by the operations of the corporation and also have the power to negatively impact the corporation's operations (Freeman, 1984; Clarkson, 1995; Altman, 2000) then they have a stakeholder relationship with the corporation. Therefore management indeed have a responsibility towards the community within which their organisation operates consequent upon the social contract existing between them.

The position of the community as a stakeholder group can be analysed further by evaluating the propositions of Mitchell *et al.* (1997) and Altman (2000). Altman ranked the community stakeholder group into three operational categories the *"recognised"* group, the *"recognised"* individual and the *"ignored"* group (Altman, 2000:65). This ranking of the 'community stakeholder group' supported Mitchell *et al.'s* (1997) theory of stakeholder identification and salience and offered a simplified view of stakeholder theory in the community context and thus a move towards understanding the management of the community as a stakeholder group. Mitchell *et al*. (1997) theorised that the salience accorded to specific stakeholders' claims is a function of the attributes they possessed. They argued that the salience may be low, moderate or high depending on the number of identifying attributes they possess.

Therefore, drawing from the stakeholder identification and salience theory the importance of the community in the stakeholders' system and the level of salience accorded them by management can best be understood by classifying the community into dominant, dependent or dangerous stakeholders as depicted in Figure 3.3 below, given the attributes they possess (Mitchell *et al.*, 1997). This will give an understanding of the position of the community in the stakeholder system and the importance of CCID to this group of stakeholders.

Mitchell *et al.* (1997) identified community leaders as one of those groups constituting corporate boards of directors (for example the non-executive directors) in most large corporations. It is the responsibility of this group to represent the interest of their community at the board level and also *"maintain good relationships"* between the corporation and its local community and the government (Mitchell *et al.*, 1997:877). They therefore have legitimacy by virtue of their membership and standing in the corporation and the society at large, *"a stakeholder group achieves legitimacy if it has a legitimate standing in a society"* (Smith *et al.*, 2005:127). They also possess power because they cannot be ignored (Altman, 2000). This group of people therefore falls into the dominant stakeholder category since they possess power and legitimacy and cannot be ignored (Figure 3.3 above). This group as a matter of compulsion would require that corporations produce reports on their involvement in community development activities as evidence that the interests of the community are taken care of and as a proof of compliance to the implied social contract in existence, thus linking stakeholder theory to legitimacy theory.

Figure 3. 3: Stakeholder Identification and Salience Model



Source: Adapted from "Toward a theory of Stakeholder Identification and Salience: Defining the Principle of Who and What really counts. Mitchell, Agle & Wood, (1997:874)

The recognised individuals identified by Altman (2000) may include other members of the community who also qualify as dominant stakeholders. These may be organisations or individuals whose investment decisions are socially motivated. Van Buren and Paul, (2000) refers to such investment as *"socially responsible investing (SRI)"*, while this category of stakeholder, although investors, could double as environmental or community stakeholders. Van Buren and Paul (2000) argued that this stakeholder group serves as "*monitors of corporate social performance*" (p.135) who could withdraw their investment if they perceive that the corporation is socially irresponsible (normative response – Neville *et al.*, 2005), hence possessing the power to impose their will on the corporation. They qualify as dominant stakeholders since they possess legitimacy, power and recognition by virtue of their investment. It is instructive to note however that the dominant stakeholder group may move into the classification of definitive stakeholders (those possessing all the three attributes – (see Figure 3.3 above) if for any reason their claims become urgent, in which case they are accorded high salience by management.

The ecosystem and the local residents of a community could be classified as dependent stakeholders (Figure 3.3) – these are the wildlife habitats and people with the attributes of legitimacy and urgency but who have no power to put forward their claims but rather depend on the community leaders and socially motivated investors (the dominant stakeholders) to put their claims forward. Examples of dependent stakeholders are the wildlife habitats and local residents of Alaska, USA where the Exxon Valdez oil spill occurred on March 24th 1989 and those of the town of Grand Bayou Louisiana, the Atakapa-Ishak tribe who among others were victims of the recent BP oil spill on the Gulf of Mexico between April 20th and July 15th 2010 (BBC News, 2010). These are men, women and children who call this land home and who are fish and crop farmers by means of subsistence and whose farmland and fish waters have been polluted by oil spills and are therefore threatened by cultural genocide as a consequence of the oil spills. Their claim is urgent and legitimate but they lack power. Mitchell *et al.* (1997) argued that this group of stakeholders could also be moved into the definitive stakeholder group if their urgent claim is adopted by the dominant stakeholders – for example the US government.

The ignored group who could also turn out to be dangerous stakeholders are those local residents without legitimacy, having power and urgent claims but whose interest is at variance with those of the corporation. Altman's study revealed that this group is constantly monitored by management. Mitchell *et al.* (1997) describe this group as *"coercive and possibly violent"* (p.877). Members of this group may go to any length to impose their will. The local residents of a community without legitimate claims and whose interests are at variance with those of the corporation fall under this category. A good example is that of the poor local residents of the Niger Delta region of Nigeria, who taking advantage of the situation in the area (environmental negligence), takes to kidnapping of expatriates and then demanding ransoms in exchange (Pflanz, 2006 and Pym, 2006). This is suggestive of the fact that although the interest of certain groups of people within the community may be at variance with those of the corporation, the need to take such interests into perspective when making decisions cannot be overemphasised as can be seen from the Niger Delta example above, as ignoring this group of community stakeholders will impact negatively on the corporation. Clarkson (1995) argued that a better way to evaluate a corporation's social performance is by measuring how well a corporation manages its relationships with its stakeholders.

In summary, applying stakeholder theory to the CCID phenomenon will help identify the nature of the corporation/society relationship as well as the role of the community in identifying the legitimacy gap necessitating corporations' involvement in community development and the motivation for its disclosures. Also managing the community stakeholder boils down to effective communication which is discussed within the premise of signalling and semiotics theories in sub-sections 3.2.4 and 3.2.5 respectively. Agency theory is discussed in the next section in order to give a clearer understanding of the relationship between legitimacy and stakeholder theories and their role in explaining the motives behind CCID.

3.2.3 Agency Theory Literature

Although agency theory has been employed in literature as an explanation for voluntary disclosures generally (Morris, 1987; Chow & Wong-Boren, 1987; Cooke, 1989 & 1992; Hossain *et al.*, 1994; Watson *et al.,* 2002; Baek, Johnson and Kim, 2009), it has not often been applied as a possible explanation for CSRD. Only few studies have applied it to CSRD studies (Ness and Mirza, 1991; Beliveau *et al.,* 1994).

Agency theory posits that an agency relationship is created when the owners of business (financial stakeholders) delegate decision-making authority to managers (Jensen and Meckling, 1976). The managers therefore become accountable to the owners. However given that the company is not only accountable to the financial stakeholders as theorised under the stakeholder theory (Freeman, 1984; Donaldson & Preston, 1995) and legitimacy theory (Parsons, 1960; Dowling and Pfeiffer, 1975), the theory is examined in this research as a possible explanation and/or complementary theory to the explanation and understanding of corporate decisions to disclose community involvement and other social activities.

This is borne out of the agency problem created when the principal (financial stakeholder) and the agents have conflicting goals as posited by agency theory and thus necessitates the principal to incur agency cost on monitoring mechanism to monitor the agents' activities. Fama and Jensen (1983) documented that managers have a tendency to pursue their own personal ambition at the expense of the owners; this may include protecting their reputation as managers (Beliveau *et al.*, 1994). Studies have shown that managerial reputation is a key factor when deciding what to disclose in annual reports (Beliveau *et al.*, 1994; Campbell, 2000). This is because such disclosure will reveal the sort of manager they are. The point is that unlike the shareholders that have the opportunity to diversify their investments, managers are faced with employment risk and hence have a tendency to protect their reputation as managers at the expense of the investors' value maximisation goal (Beliveau *et al.*, 1994).

Therefore reputation building is a way of hedging employment risk by managers; good managers are those notable for, not only good financial performance but also getting involved and showing experience in current global activities such as corporate social performance and disclosures. Such managers are portrayed as possessing excellent managerial skills (Spicer, 1978; Beliveau *et al.*, 1994). In effect, in order to be seen as good managers and thus be able to remain employed even in the face of recession, managers have the incentive to respond to the global quest for corporate social responsibility and sustainability by participating in community involvement activities even where such decision is at variance with shareholders interest, thus creating agency problem.

According to agency theory, this conflict would incur some agency cost (Jensen and Meckling, 1976). Because shareholders are not privy to the community involvement and other social activities engaged in by the manager, they may incur agency cost of monitoring by instituting a corporate governance (CG) monitoring mechanism to monitor the activities of management. Alternatively they may withdraw their investment thereby incurring agency cost of equity (Morris, 1987) when they perceive that managers have not acted in their best interests. This will ultimately affect the market value of the company's shares. Another monitoring mechanism documented in the literature as having an effect on agency cost includes institutional ownership, large block holders (Baek *et al.*, 2009) and managerial ownership. Jensen and Meckling (1976) theorised that increased managerial ownership will align the interest of managers and owners thereby reducing agency cost and hence increasing firm value.

Management on the other hand may also offer some solutions to reduce agency problems; this may include disclosing more information to the principal to redress the information asymmetry and hence reduce the agency cost of monitoring and the agency cost of equity. Since information asymmetry is a major contribution to the agency problem – i.e. managers possess more and superior information about the company than the owners – agency cost can be reduced by disclosing more information about the firm to the owners. However in disclosing this information management may also incur some additional cost of monitoring and bonding (Fama and Jensen, 1983). These are the costs of producing a social report in order to explain the company's corporate social activities to the shareholders, stating the cost and the benefit. Cost incurred in the production of such reports will include cost of gathering the information, management supervision, audit and legal fees and the cost of publication (Morris, 1987). Cooke (1992) opined that where management is prepared to incur this cost on voluntary disclosures that are not mandated by law, then the tendency is that the benefit of disclosure will far outweigh the cost. The argument here is that agency theory can be employed to explain social disclosures in annual reports in so far as the cost of producing the additional pages of the social report, referred to as monitoring and bonding cost above, is intended to reduce agency cost.

Watson *et al.* (2002) argued that since a well-informed annual report will reduce the cost of obtaining such information from elsewhere, voluntary disclosure of social activities should improve the quality of the annual report and hence reduce agency cost. Watson *et al.* (2002) tested agency and signalling theory as possible explanations for voluntary disclosures of ratios where the disclosure of such ratios did not provide additional information and found only limited evidence to support an agency/signalling theory explanation. However it may be argued that since the disclosure of these ratios did not provide additional information in the annual report the cost incurred in disclosing such information cannot reduce agency cost.

Moreover the theory argued that as more monitoring and bonding cost is incurred there would be an optimum level where any additional cost on monitoring and bonding will no longer be beneficial (Jensen and Meckling, 1976; Fama and Jensen, 1983 and Jensen, 1983). It is postulated here that for agency theory to adequately support the disclosure of social and community involvement activities, the disclosure must have a value added effect on the annual reports that is, it should signal quality and be capable of reducing the agency cost of equity. It follows therefore that the agency cost of equity will be reduced if CCID in annual reports can be read and interpreted as perceivable signals of reality and quality capable of generating ethical investment rather than withdrawal of investment.

3.2.4 Signalling Theory Literature

To begin with, signals may be described as bits of information from which inferences can be drawn about the behaviour of the sender (Herbig and Milewicz 1996). Signalling theory originates from evolutionary biological works where communications between animals were examined (Bergstrom, 2008). The theory posits that the qualities possessed by an individual most of the time are perceived via signals, for example putting on a smiling or cheerful look may be an indication of a happy, optimistic and positive thinking individual while a gloomy or dull look may indicate sadness, depression or pessimism. These signals, although outward are perceivable indicators of what is happening within the individual.

In the same way the qualities possessed by an organisation may not be easily perceivable without certain signals. Qualities could be strength, ability to compete in a competitive environment or even social responsiveness. Corporate outlooks and communications, whether with words, press releases, corporate reports, gestures or display of possessions consist of signalling cues about whom they are and the qualities they possess. For instance having a magnificent head office site or factory might be an indication of a large corporation, the outlooks and cars used by the employees of an organisation may indicate a well paid employee with competitive salary structure, a robust financial statement may be an indication of a successful business while the disclosure of community involvement or other social performance information may also be an indication of social responsibility.

Although originally developed by the evolutionary biologists, the theory was first applied to the business world by Spence (1973) using the scenario of the labour market. The theory has also been applied to accounting disclosures and financial signals (Gelb and Siegel, 2000; Watson *et al.*, 2002; Marki-Davies and Brennan, 2007) and reputation management (Toms, 2002; Hasseldine *et al*., 2005) but is yet to be applied to CCI and other social disclosures. Examining this theory at this time is therefore very crucial to the on-going debate on social disclosures as it is necessary to distinguish between disclosures that really indicate corporate community development and those that do not.

3.2.4.1 The Application of Signalling Theory to CCID

Signal may be said to be a perceivable action which is intended to indicate a quality not otherwise perceivable about the signaller (Guilford and Dawkins, 1995; Maynard-Smith & Harper, 2003). In other words the signaller intentionally uses a signal to indicate a certain quality about themselves in which case they stand to benefit from others' awareness of this quality otherwise they may stop producing such signals (Bergstrom, 2008). The argument is, given that as of today community involvement disclosures are voluntary, that is, corporations disclose not because they are mandated to do so the incentive to disclose therefore may be explained from the point of view of signalling theory.

Firstly, the performing corporations see themselves as possessing some qualities others do not possess. This gives them the incentive to signal this quality to the community and the market in order to distinguish themselves from a non-performer and thus gain legitimacy for their operations within the community and/or attract investments from ethical investors as well as ethical consumers. In other words CCID may be seen as a form of market signalling (Spence, 2002). Therefore one may argue that if the disclosure of community involvement cannot attract ethical investment, organisations may not be encouraged to produce such information.

Secondly, since community disclosure is considered as a corporate action intended to meet the expectation of the community stakeholder groups as pointed out by the Wood and Jones (1995) model in Figure 3.2 above, then its disclosure will signal adherence to community expectations. To this end signalling theory may be employed to explain the disclosure of community involvement in so far as an implied social contract exists between the corporation and the community in which the company operates as posited by legitimacy theory.

Thirdly, the necessary condition for the applicability of signalling theory is information asymmetry in a competitive environment (Spence, 1973; Watts and Zimmerman, 1986); therefore signalling theory may be used to explain the disclosure of community information in so far as performing corporations have information of a quality that stakeholders do not have thereby creating information asymmetry. Agency theory posits that if information asymmetry exists between the managers of a corporation and its stakeholders the managers can reduce or eliminate the information asymmetry by providing the necessary information to assist stakeholders in their decision making process (Jensen and Meckling, 1976). As argued by Spence (1973) therefore, the communication problem between the corporation and the community can be solved by applying the *"conceptual lens"* of signalling theory (Spence, 1973:356). The signalling system is in other words a good communication system which is expected to benefit both the signaller and the receiver.

Moreover managers are aware that the ethical investor requires enough information from which they can establish the claim of the corporation and satisfy themselves before making an investment decision. In other words the investment decision by an ethical investor is determined by his perception of a corporation's social responsibility. However the investor cannot perceive this quality by merely observing the organisation from the outside. He therefore needs a signal that will communicate to him the social responsibility quality which will help inform his investment decision. To this end signalling theory predicts that managers of higher quality social responsibility will crave to signal their quality in order to distinguish themselves from lower quality firm by disclosing their quality voluntarily (Spence, 1973, 2002; Watson *et al.*, 2002).

3.2.4.2 The Reliability of a Signal

However the signalling system may be undermined if the signaller is deceptive (Bergstrom, 2008). This is because receivers do not just receive signals; most of the times such signals will help inform economic decision making as decisions made on more information are usually better ones. According to Spence (2002) a signal is productive if a decision is made better or with greater efficiency as a result of the information contained in such a signal. To this end receivers too stand to gain from acting upon the receipt of signals otherwise they will ignore it, in which case the production of such signals will no longer be beneficial to the signaller. It follows therefore that a signal will continue to be beneficial to both the signaller and the receiver if it is an honest and reliable signal (Bergstrom, 2008). A deceptive signal will not only be a harmful one to the receiver but will eventually become unbeneficial to the signaller. A signal will be a reliable one if the reliance on such signals for decision making purposes turns out to be good. On the other hand, if the reliance on a signal for decision making turns out bad, then the signalling system will be undermined. The question then is; how reliable are signals? For instance, in a competitive environment where all corporations want to stand out as socially responsible an ethical investor is faced with the uncertainty of who really is socially responsible. Everyone reports or at least makes mention of their social performance, the question is how reliable are these claims? Are there other means of verifying such information? Does the disclosure of community involvement activity in the annual reports indicate community development or social responsibility? These are empirical questions that are yet to be tested and for which this research sets out to find answers to.

The reliability of signals has been examined in literature (Spence, 1973, 1974, 2002; Morris, 1987; Herbig and Milewicz, 1996; Kirmani and Rao, 2000). For a signal to be true and receive expected feedback, certain criteria must be satisfied; a signal must be consistent and alterable, that is, the nature and intensity of the signal can be adjusted and improved upon, it should be easy to acquire and should be capable of providing the basis for making inferences concerning the quality of the organisation which otherwise are not easily observable (Spence, 1974; Herbig and Milewicz, 1996). Bergstrom (2008) asserts that signals are reliable when they are correlated with the quality they represent. For instance a weight lifter in a competition can show he or she is stronger than a fellow weight lifter by lifting a heavier weight; the competitor will not be able to lift the same weight if he or she does not possess the same quality as his or her contemporary no matter how much he or she tries. The ability to lift a heavier weight is a reliable indication of being stronger. Some other signals, although may be as reliable as this, but may be easily replicated (Bergstrom, 2008). For instance a replicated resume showing competences in many areas may earn a good job whether or not it truly represents the qualities of the bearer. Similarly a disclosure of social information may be taken to mean corporate responsibility when the truth is far from this.

Moreover in a competitive environment, there is the tendency for deception and social responsibility disclosures are prone to being used as one such deceptive signal. One of the tenets of signalling theory therefore is that for signals to maintain their significance as an effective communication device there is the need to limit the rate of deception otherwise the signal will lose its meaning (Spence, 1973, 1974). The question therefore is what keeps signals reliable? Signalling theory examines the reliability of a signal, how applicable the signal is to the quality it represents and what are the fundamentals of the signal or the environment within which the signal remains reliable, when can a signal be said to be unreliable[5] and how much unreliability can be tolerated before the signal becomes meaningless? The theory posits that a signal is reliable when it is consistent (Herbig and Milewicz, 1996) and very costly to produce (Grafen, 1990). These are examined in turn.

3.2.4.3 Costly Signals

Grafen (1990) argued that if a signal is beneficial to produce truthfully but very expensive to produce falsely then it can be said to be reliable. For example, Zahavi (1975) in his analysis of the peacock's extravagantly displayed tail explained that this display does not only require a lot of energy to keep up but also put the bird at risk of predation. Zahavi (1975) argued that the costs of this display, that is, the energy and the risk of predation qualify the peacock's action as a reliable signal of superiority. Similarly a nineteenth-century theorist, Veblen (1899), argued that displaying wealth goes beyond having enough to spend on essential goods and daily requirements but means spending wastefully on non-essential goods such as jewellery or actively participating in time-wasting leisure activities. Veblen emphasised that a less financially privileged individual would rather engage in some form of income-producing activity.

[5] The question that is yet to be answered in literature is how the receivers of these signals can be sure that the signals are actually indications of the qualities the signaller claims they possess. In evolutionary biology where the theory originates the models of signalling behaviour assumed perfect communication in which the receiver gives the same interpretation as the signaller. However the tendencies in humans are that signals may be interpreted differently as there are lots of imperfections in human communication. Signalling theory therefore argues that a reliable signal will not only be beneficial to produce truthfully but will also be prohibitively costly to produce falsely (Grafen, 1990; Bergstrom, 2008).

According to him wastefulness is a reliable indication of status as it reliably indicates the existence of wealth. In other words displaying wealth means spending excessively. It is this excessive spending that makes the signal a reliable one.

Spence (1973) in his article described how employees can signal their skills through costly signals such as education to the employer who is also willing to pay higher wages to hire such employees. Spence argued that although education may not contribute in any way to the employee's productivity, the willingness to pay a higher price to obtain more education as a signal of productive ability to the employer earns the employee a higher wage. A reluctant employee, on the other hand, would rather accept a lower wage than pay a higher price for more education. Spence's model revealed that at equilibrium the education signal is correlated to higher productivity. Consequently Grafen (1990) argued that costly signalling is a communication strategy.

Drawing from the above assertions, it follows that a costly signal of corporate community activity may be in the form of spending money, time and other resources which otherwise could have been spent on some more relevant corporate activity on expensive community projects, such as a school building or a community centre, which is outside the company's corporate activity and incurring additional cost of producing a report on the project. Especially for those organisations that produce standalone reports, such reports contain many pages with criteria to be met in producing them. For example in Germany, the Institute for Ecological Economy Research (IÖW) and the business network future (future) in a joint project set out over 50 CSR reporting criteria with which they carried out evaluation and ranking of CSR reports of German companies (Gebauer and Hoffmann, 2009).

Although meeting the IÖW and 'future' criteria might not mean an absolute social performance in reality, however, a low quality report may be an indication that the reporter is not engaged in CSR-related activities and hence has little to report on. On the other hand a high-quality CSR report is most likely a good indication of social performance, this is because to produce a high-rank report the reporter will have to provide a holistic view of their CSR activities and provide content-oriented responses to the IÖW and 'future' criteria which requires generating and submitting supporting information of their claims (Gebauer and Hoffmann, 2009). Such information will include measurable objectives of a particular area of CSR activities such as community involvement and planned activities to achieve these objectives.

3.2.4.4 Consistency in Signalling

Herbig and Milewicz (1996) argued that consistency can be measured by the repeated fulfilment of a claim in prior signals. In other words a reliable signal must be consistent with the actions of the signaller over a period of time. Consequently a CCID that cannot be matched consistently with the actions of the producer cannot be said to be a reliable signal of active involvement in community development. For instance the statement below was credited to Lord Holme, former executive director of Rio Tinto, and Sir Philip Watts, the group managing director of Royal Dutch Shell; an excerpt from an article jointly written by them:

"Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large" (Holme & Watts, 2000, cited in Pendleton, 2004:4)

This statement cannot be said to be a reliable signal of social responsibility when the host communities of this corporation have suffered and lived in misery as a direct consequence of the operations of these multinationals in those environments, yet Shell and other multinational organisations whose operation has an adverse environmental impact on their host communities have always claimed they operate with honesty and integrity and respect for people (Pendleton, 2004). This clearly demonstrates inconsistencies as the actions cannot be matched with their words.

Consequently a CCID may be considered a reliable signal of community activities if it demonstrates a holistic and content-based reporting of a company's community involvement activities, as this will be very costly and difficult to mimic for a non-performer and a mere image builder without the requisite knowledge and active engagement in such areas of social and community programmes. For instance as this research is concerned with the reality and reliability of community involvement disclosures in annual reports, producing a report on community development should involve investing in an expensive and hard to imitate project such as building schools, health centres and other community projects that are verifiable and difficult to imitate for a non-performer. Hence when reported as a signal of CCD, such an investment will be perceived as a quality signal by the recipients of such reports. These issues are discussed further under semiotic theory which is basically concerned with the way the recipient of a message or disclosure can draw meanings from the signs or signals inherent in the disclosures.

3.2.5 Semiotics (Semiology) Theory

The fact that language influences thinking and hence perception has been well argued by renowned scholars in the field of linguistics and psychologists such as Gumperz and Levinson (1996) and Lucy (1992 &1997). Lucy (1997) classified the manner in which language can influence perception into three parts; semiotic or semiology[6], structural, and functional[7]. Of particular interest to this study is the semiotic effect of language on perception. The argument is that when language is used in a particular way it may influence thinking and hence have effect on perception (Lucy, 1992 & 1997).

Consequently Jain (1973) and Belkaoui (1978), drawing from the "Sapir-Wharf Hypothesis"[8] (Belkaoui, 1978:97), in an attempt to address the communication problem between corporations and stakeholders, argued that as language of business, information contained in corporate annual reports can be read or spoken like any other language.
This followed the argument put forward by Sapir and Whorf that each language involves particular interpretation uncommon to other languages and that such interpretation is interrelated with a variety of knowledge and experiences and hence is capable of influencing thoughts and perceptions in different ways, (Jain, 1973; Belkaoui, 1978; Gumperz and Levinson, 1996).

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[6] The term semiotics is more widespread in English-speaking countries, while semiology is preferred by the French linguists. However in this thesis the term semiotics has been used.
[7] The functional use of language developed from the concept of functional fixation. This concept according to Jain (1973) state that once a person relates a meaning to a particular phenomenon or event through past experience, this meaning becomes fixed in his head and is related to subsequent phenomena or event irrespective of alternative meanings or causes of that event.
[8] Also known as the Linguistic Relativity Hypothesis. The hypothesis historically developed through the works and propositions of Edward Sapir (1884-1939) and Benjamin Lee Whorf (1897-1941). Although most of these works were not published, they later became the source of controversial debate among anthropologists, psychologists, and linguists (Gumperz and Levinson, 1996).

3.2.5.1 Accounting as Language of Business

As language of business, scholars such as Jain (1973); Belkaoui (1978); Cooper and Puxty (1994); Macintosh *et al.*, (2000); Macintosh and Baker (2002); Macintosh, (2003); McGoun *et al.* (2007) and Davison (2007, 2011) argued that corporate disclosures whether contained in annual reports, press releases, accounting magazines or even a separate CSR reports and in whatever format, whether quantitative, narratives, images, graph or in tables all represents means of communication. They therefore emphasised the need for a 'linguistic turn' in drawing meanings from such disclosures. The linguistic turn as defined in Macintosh and Baker (2002:185) refers to *"the idea of treating the phenomena or object of interest as a text and analysing it for its textual properties using methodologies from literary theory, linguistics and semiotics"*. The argument is that corporate disclosures should be seen as texts and as texts they are polysemic. Davison (2007, 2011) also supported these views and argued that what is being interpreted is the language itself rather than the intended meaning of the author.

However in an earlier study Jain (1973) argued that as languages represent phenomena in the real world so does accounting information in the business world. Therefore he described accounting rules as financial grammar and considered it as analogous to grammatical structure in linguistics and therefore examined its effect on the perception of the listeners (i.e. the readers/users) of financial information. He found that accounting information affected decision making. In the same way Belkaoui (1978) argued that the lexical characteristics and grammatical rules of accounting will affect the linguistic and non-linguistic behaviour of users of accounting information.

To this end he introduced four propositions indicating that the use of accounting language in different ways by different users can affect its information content and therefore influence behaviour in different ways[9]. Moreover, Macintosh and Baker (2002) illustrated that as the language of business, the claim that accounting information

[9] These propositions have been supported by various empirical studies documented to support the fact that the presentation format has effect on the information content of annual reports (Lecault (1981); Davis, (1989), Ryack & Kida (2006) and Tarca, *et al*. (2008). Lecault (1981) found that presentation format has an effect on both the use of information contained in annual reports and the confidence expressed on that information in decision making. Ryack & Kida (2006) examined whether differences in format presentation at encoding and retrieval can affect the recall of financial data by investors, the study revealed that even a minor alteration in the presentation format has significant effect. It can be argued therefore that the presentation format of CCID may have an effect on its level of informativeness.

represents an objective reflection of reality may only be sustained when such information are investigated for their narrative qualities. Therefore Macintosh *et al.* (2000) and Davison (2007, 2011) drawing from Baudrillard's orders-of-simulacra theory and the Barthesian semiotics respectively, argued that accounting and finance researchers should employ linguistic-based theories such as semiotics in accounting and finance research, arguing that economic-based theories have lost power in predicting social phenomena. Against this background therefore, the researcher took keen interest in exploring the use of semiotics along with other economic-based theories in this thesis, in order to investigate the current phenomena. In the subsequent sections, therefore, the origin and development of semiotics as well as its criticisms are examined.

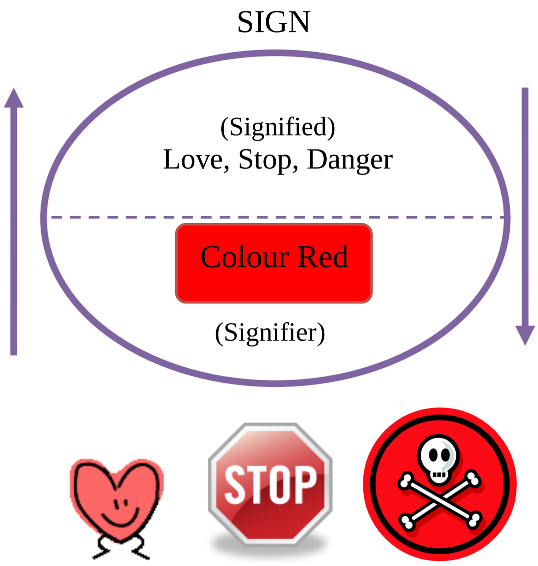
3.2.5.2 The Saussure Semiology (Semiotics)

The foundation stone of semiotics was laid by Swiss linguist Ferdinand de Saussure (1857–1913) through his lecture 'Course in General Linguistics' published in 1916 after his death (Barthes, 1977). Semiotics actually developed out of linguistics which is the scientific study of languages and has since expanded to conceptualize the general study of signs (Crystal, 1987). Saussure described semiotics as a science of signs encompassing any system of producing signs which constitute some form of signification. Such signs which could be in the form of behaviour, a pattern of doing things, an image, an object, a sound or even a name is usually intended as a form of *signifier* or signal carrying many more messages than the written words (Barthes, 1977). Eco (1976) therefore summed up that semiotics is concerned with anything that can be taken as a sign, including an act or behaviour by an individual or a corporation.

According to Saussure, the linguistic sign does not unite a thing and a name but rather a concept and the sound, image or gesture (Saussure, 1974). For instance, the colour *red* could mean much more than being just one of the primary colours, but could connote a range of apparently differing emotions. For example, it could denote anger, violence or war. It could also mean stop, danger or emergency. Better still, it could denote energy, strength or power as well as passion, desire or love. The meaning assigned to it at any point in time therefore depends on the circumstances surrounding its use, any other sign that goes with it, as well as the experience and knowledge of the interpreter. If we apply

Saussure's model of a sign – the *signifier* and the *signified* – the colour *red* represents the *signifier* while the concept of love, stop or danger represent the *signified* as shown diagrammatically below. In other words the Saussure model divides a sign into two inseparable components – the *signifier* and the *signified* – while the relationship between the two is the signification.

<u>Figure 3. 4: Saussure's Dyadic Model of the sign</u>

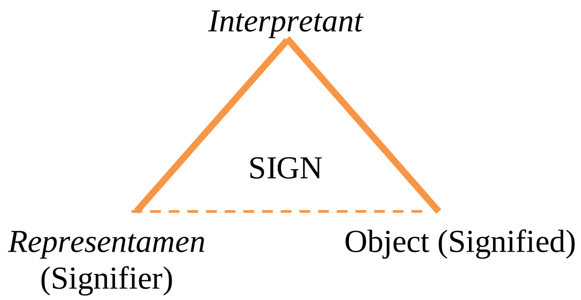


Adapted from Chandler (2007)

3.2.5.3 The Peirce Semiotics

However, an American philosopher, Charles Sanders Peirce (1839–1914), at about the same period as Saussure, developed the theory of semiotics which he defined as a doctrine of signs (Chandler, 2007). To Peirce, a sign is anything which stands for something in some respect or capacity to somebody. Accordingly Peirce considered a sign as having three elements: *iconic*, *symbolic* and *indexical;* as against the two components of Saussure's *signifier* and *signified*. Iconic signs are those that bear close resemblance to the signifier. For instance a picture of a school building in support of a community involvement activity disclosure in an annual report may be iconic, if the narrative also mentions donations to that effect. However the same picture may also be a mere symbol of involvement in community activity if no mention is made in the narrative that the company is actually involved with the building of a school. On the other hand an index is a sign whose signifier is usually associated with a particular signified; for example a smoke could be seen as signifying fire. Peirce argued that all social practices can be seen as signs (*representamen*) which stand for something (*its object*) to somebody (*it's interpretant*) in some respect or capacity (*its ground*) (Peirce 1931-58).

Figure 3. 5: Peirce's Triadic Model of the sign



Adapted from Chandler (2007)

The triadic interactions of these terms, known as *semiosis*, refer to the process of signification which is quite different to the dyad relationship of Saussure's *signifier* and *signified*. Peirce's triadic model is usually represented by a triangle (see Figure 3.5 above) showing the triad relationship (Chandler, 2007). Peirce proposes various possible combinations of these triadic relationships depending on the type of sign and ends up with several classes of signs (Hawkes, 2004). Arguably therefore, Peirce's analysis appears to extend the work of Saussure by enumerating different types of signs, how they interact and what rules govern each set of signs to form signification. While Saussure's model made no reference to any external reality outside the sign system, but simply identified the hidden binary oppositions in the signs in order for signification to occur, Peirce's model made reference to an *interpretant* or *referent* which is beyond the sign and is sign in itself (Chandler, 2007), thus leading to a series of signs the collective presence of which constitutes signification. Therefore, in Peirce's model, signification is seen as a generative process (Floch, 1988).

3.2.5.4 Further developments in Semiotics

Nevertheless since the death of these two founding theorists of semiotics, semiotics has undergone different stages of development; notable works among contemporary Semioticians are Morris (1946); Jakobson (1960); Barthes (1967, 1977); Lévi-Strauss (1972); Greimas (1983, 1987); Eco (1976); Sebeok (1977, 1994) and Baudrillard (1988). Barthes (1967, 1977) introduced different orders of signification (Barthes, 1977). According to him the first order signification, which he referred to as "denotation", simply refers to the iconic meaning of a sign in which case the photograph of a new school building within a community system simply means a school or a place of learning. The second order signification, referred to as "connotation", is when further interpretation is given to the photograph. Such connotation will normally be influenced by our knowledge of the financier of the school building as well as our experiences and knowledge of the ideological and political phenomenon within the community where the building is located. This is referred to as *myth* by Barthes. However taking into consideration the on-going debate on CSR and the current trend among corporations to be seen as socially responsible, a further meaning or myth may be activated from the photograph going by Barthes' mythological analysis. The photograph of a new school building within a community on the front page of the annual report of a multinational company may connote a second order signifier, signifying that the multinational company is involved in community development and is therefore socially responsible.

Semiotics is often used as a form of textual analysis. Text here could be in the form of words, images, gestures or sounds, recorded in a particular medium of communication which will be independent of both the sender and the receiver; the message could be in writing, audio or video recording or an image (Chandler, 2007). Semioticians believe that an analogy can be drawn between languages and signs. In other words signs in whatever form (gestures, sounds, pictures or TV films) are like languages or texts that can be read like the written word, while the users of such texts are referred to as readers (Crystal, 1987). Reading a text is an active way of decoding the messages in the text by the reader. In the same way the reader of a sign can decode the signification of that sign within the repertoire offered by the sign (Fiske, 1987).

Semiotics as a science emphasises the fact that social practices are expressed like languages and as languages are a structured system of symbolic representation developed out of culture, the meaning we give to any social practice is also developed out of our cultures and therefore has symbolic cultural meaning and values (Kristeva, 1973). Billington (1991) asserted that all forms of social practice have the potential to mean something with the meaning finding its route from the codes used within a particular cultural environment. For example in Eastern culture the refusal of a woman to wear the veil could signify refusal of Islamic laws and as such she stands the risk of being prosecuted under Islamic law, whereas in Western culture whether a woman wears the veil or not is a matter of choice and may either signify nothing or in present times, if she is from an Eastern background, may signify defiance and fundamentalism. In other words the codes used in the sign systems of different cultural settings express and support the social organisation of those cultures. To this end the meaning we read to a sign cannot be independent of the ideological and political situation in existence (Billington, 1991).

Accordingly Saussure argued that for signs to be useful as a tool of communication, the sign system will have cultural meaning and values incorporated in it, that is, the value of a sign is culture-specific as it is developed out of culture, therefore the values of our culture are incorporated into the signs we use. In other words the meaning given to a particular sign is a function of the reader's cultural knowledge and experience of the system within which the sign developed (Saussure, 1974; Chandler, 2007). To this end Saussure argued that signs can only give signification where they enjoy relational values, that is, the value attached to a sign is as a result of its relationship to other similar values and the fact that one event follows after another otherwise signification would not exist (Berger, 2005). Saussure refers to these relational values as syntagmatic and paradigmatic relations as we have them in the text of languages where one word would have to come after another for us to make a meaningful sound or statement.

Chandler (2007), emphasising the importance of semiotics, asserted that semiotics is very useful if the task is to look beyond the content of the text. He pointed out that semiotics reveals the role of humans in the construction of reality and the fact that meaning is not *'transmitted'* to humans through books, computers or media, but that humans are actively involved in the creation of meaning through a complex interplays of codes and conventions. He remarked that *"Becoming aware of such codes is both inherently fascinating and intellectually empowering"* (Chandler, 2007:11). He argued further that the study of signs helps to define reality as it is represented since reality as presented in the social world may not be what it appears to be; accordingly a particular representation may symbolically stand for something else. This echoes Belkaoui (2004) argument, in his book on accounting theory, that a statement believed to be true or false should still be proven as true or false before it is accepted as the truth or false. Similarly, Eco (1976) argued that to establish reality, one must be able to distinguish whether the sign is actually telling the truth or a lie about the phenomena, since anything that can be used to communicate the truth can also be used to communicate lies.

3.2.5.5 Criticisms of Semiotics Theory

One of the popular criticism of semiotics as a study of signs is that, as it concentrated mainly on the generation of meanings from signs, it totally ignored the quality of such signs (Berger, 2005), also it ignored the institutional frameworks, and the social, economic and the political context within which the sign was produced (Chandler, 2007). In other words, semiotics is only concerned with *'how'* the sign generates meanings rather than answer the question: *'why'* produce the sign in the first instance? (Slater, 1997:141). To this end the structuralist semioticians are criticized for the way texts are related to their own structures. Buxton, (1990) argued that text ought to be related to other things outside its own structures, while Chandler (2007) argued that since structures are not the causes of producing the sign, semioticians should not only be concerned with structural signification but also why signs are socially produced, while maintaining that the ontological arbitrariness between the signifier and the signified in the structural context may not apply in the social or political context.

Furthermore, work on semiotics (Saussure, 1983; Peirce, 1931–58; Barthes, 1957-1980) has centred on establishing its scope and fundamentals; there is yet an agreed theoretical assumptions as to its applicability so also no clear models and/or methodologies have yet been established (Chandler, 2007). Chomsky (1968) criticized the fundamental assumption of semiotics that all social practices are like written texts capable of being read and interpreted; while commenting on the work of Lévi-Strauss on the kinship systems, he argued that nothing was documented to show any resemblance to language in the study. Although Saussure's semiology is accepted as the starting point, both the Saussure and Peirce models have received criticism and have undergone various developmental stages (Jakobson, 1960; Lévi-Strauss, 1972; Barthes, 1973; Greimas, 1983).

Nevertheless, without theoretically agreed assumptions, semiotics has been applied to empirical studies by scholars in various fields of study basically testing the semiotic principles. However, while the early semioticians (Saussure, 1983; Peirce, 1931–58; Propp, 1958 and Barthes, 1957) were more concerned with seeking deep structures beneath the surface of a phenomenon, modern semioticians (Greimas & Courtés, 1982; Cooper and Puxty, 1994; Macintosh and Baker (2002); Davison (2007, 2011); Crowther, 2002; Yusoff and Lehman, 2009) are more concerned with the use of signs to shed more light on specific social phenomenon (Chandler, 2007).

3.3 The Inter-relationship of Theories

From the discussions of legitimacy theory, stakeholder theory and agency theory above, we can see that the theories all view CCID from different perspectives. The assumptions and standpoint of each theory gives us a better understanding of a number of issues regarding the determinants of social disclosures generally and CCID in particular. This thesis argues that the theories are not competing theories but are either subsets or complements of one another and can provide better explanatory power when employed as a combined theory to explain CCID with each giving insights into specific aspects of the disclosure.

3.3.1 Legitimacy vs. Stakeholder Theory

Legitimacy and stakeholder theories share a similar ontological view of the corporate/society relationship. They both assume that organisations and society both impact on one another (Gray *et al.*, 1995a; Chen and Roberts, 2010) and that the interactions between organisation and society continually create reality and social structures. However Gray *et al.* (1995a) argued that each viewed the social system from different perspectives. While legitimacy is concerned with the legitimisation process, stakeholder theory is concerned with the legitimisation strategy (Chen and Roberts, 2010). Similarly Woodward, Edwards & Birkin (1996) postulate that although stakeholder and legitimacy theories have the similarity of viewing an organisation as part of the society at large, both focused on different perspectives. While legitimacy theory looks at the corporation's contractual obligation to society as a whole, stakeholder theory makes a distinction between groups within society and recognises that some groups are more powerful than others (Mitchell *et al.*, 1997; Altman, 2000).

In other words, legitimacy theory deals with the process of shaping the perceptions of society about the organisation through symbolic actions and communication while stakeholder theory helps to identify, understand and manage the particular societal interest group whose perceptions needs to be shaped (Van Der Laan, 2009). Therefore while legitimacy theory is all about managerial perceptions, stakeholder theory is about accountability to stakeholders.

Consequently CCID can be explained with the theories combined in so far as corporations engage in community activities as a way of legitimising their operations and existence within that community and thus gain the licence to operate within that community. However for the legitimising activity to receive acceptance and thus achieve the desired legitimising effect, such activity must meet the expectation of the community stakeholder group that not only sets such expectation but also has the power to confer legitimacy (Van Der Laan, 2009; Chen and Roberts, 2010). Therefore corporate community involvement can be viewed either as a legitimisation process or an exercise in accountability to community stakeholder groups or both (Van Der Laan, 2009). To this end legitimacy and stakeholder theories cannot be said to be equivalent theories as their conditions are not entirely the same. They are also not competing theories as their conditions are not contradicting but rather complementary to one another (Morris, 1987).

For instance with regards to the community, the criticism by Stenberg (1997) of stakeholder theory turning everyone into a stakeholder can be clarified with the application of legitimacy theory. Legitimacy theory views CCID for instance from the point of view of legitimising company's activities as compliance to the implied social contract existing between it and the community in which it operates (Dowling and Pfeiffer, 1975) and thus gains support and acceptability from the community. The community on the other hand falls within the definition of primary stakeholder group going by the various theoretical definitions of stakeholders and the classification into primary and secondary stakeholders by Clarkson (1995). In other words the corporation is responsible to the community in so far as an implied social contract exists between them irrespective of whether or not the community is a financial stakeholder group. Nonetheless stakeholder theory gives strength to the relationship between the corporation and its community by defining the community as a stakeholder in the corporation. Accordingly legitimacy and stakeholder theory are complementary to each other. Therefore management has a dual responsibility towards the community within which their organisation operates. Firstly the corporation is morally obliged to prove the compliance of its own part of the social contract in existence; secondly the corporation is responsible to the community as a stakeholder in the corporation. It suffices to say therefore that the existence of the corporation totally depends on the support of the community both as the custodian of the resources available to the corporation and as a stakeholder group.

3.3.2 Legitimacy & Stakeholder Theories vs. Agency Theory

Although legitimacy theory, stakeholder theory and agency theory all have the condition of implied social contract common to them, the significance of this condition varies with each theory. While the condition of a social contract is an implied necessary condition between the corporation and *society* for legitimacy theory (Parsons, 1960; Dowling and Pfeiffer, 1975) and stakeholder theory (Freeman, 1984; Donaldson & Preston, 1995; Clarkson, 1995; Wood & Jones, 1995; Mitchell, *et al.*, 1997; Altman, 2000); it is an implied necessary condition between the corporation and its *financial stakeholders* for agency theory (Morris, 1987). Therefore while legitimacy and stakeholder theories are concerned about a wider range of stakeholders (the society at large), agency theory is concerned about a subset of the corporation stakeholder (the financial stakeholders). Therefore while agency theory may not be able to explain community disclosure on its own since its application is limited to financial stakeholders, it may be employed to explain the interaction between legitimacy and stakeholder theories in the explanation of CCID. This analysis is taken in turn in the next two paragraphs.

3.3.2.1 Legitimacy vs. Agency Theory

Within the context of CCID, it is obvious that legitimacy and agency theory are not equivalent theories but rather subsets, therefore agency theory may be employed to give an understanding of the position of legitimacy theory in explaining CCID. According to the ideology of Morris (1987), two theories are subsets if the necessary condition of one is at least a subset of the necessary condition of the other or if the sufficient condition of one "*is entailed in part but not all of a set of sufficient condition*" of the other (Morris, 1987:49). In other words agency theory can be said to be implicit in legitimacy theory. Legitimacy theory posits that the corporation operates under a mandate that may be withdrawn where the corporation is found wanting (Chan and Milne, 1999) therefore suggesting the existence of a sort of a principal-agent relationship, in which case the agent (the corporation) owes some form of accountability to the principal (the society or community) which may withdraw their loyalty or support (investment) if the corporation fails to perform thereby incurring agency cost of equity (Jensen and Meckling, 1976; Morris, 1987).

3.3.2.2 Stakeholder vs. Agency Theory

In the same way agency theory can also be said to be implicit in stakeholder theory in the explanation of CCID in so far as the corporation cannot exist without the resources and the support they receive from the community-stakeholder, since the community-stakeholder could reward or punish a corporation when the corporation's actions meet or do not meet their expectations and may in fact withdraw from the stakeholder system if they think they have not been fairly treated (Clarkson, 1995; Chan and Milne, 1999). Therefore the implied principal-agent relationship actually exists between the corporation and its stakeholders. Consequently stakeholder theory, complemented by agency theory, can be employed to explain the nature of the legitimacy relationship existing between a corporation (agent) and the society (principal) in which it operates and also specify the level of accountability expected by the principal (community or society) from the agent (corporation) (Woodward *et al.*, 1996; Mitchell *et al.*, 1997).

3.3.3 Agency Theory & Signalling Theory

Signalling theory like agency theory may be employed to shed more light on the role of legitimacy and stakeholder theories in explaining CCID. However agency and signalling theories are consistent theories as postulated by Morris, (1987). Morris extensively explored agency and signalling theories and concluded that as the sufficient conditions for signalling theory are consistent with those of agency theory, the two theories are consistent. Morris therefore argued that given this consistency between agency and signalling theory, the two theories could be combined to give better predictions. Therefore one may argue that combining signalling and agency theories can help perfect the imperfections of legitimacy and stakeholder theories. For instance, notwithstanding the fact that legitimacy theory literature provided evidence that gave insight into certain aspects of corporate activities (Bebbington *et al.*, 2008b), defects of legitimacy theory include lack of specificity and the inability to explain managerial behaviour (Campbell, 2000; Parker, 2005). However combining agency and signalling theory, as illustrated in the next section, can help explain managerial behaviour (Beliveau *et al.*, 1994) in so far as the manager (the agent) wants to be seen as good and as such incurs monitoring and bonding cost (Fama and Jensen, 1983) in order to signal his quality as well as the corporation's legitimacy as posited by signalling theory, by voluntarily disclosing community involvement information, thus reducing agency cost (Watson *et al.*, 2002).

3.3.4 Legitimacy & Stakeholder Theories vs. Agency & Signalling Theories

Monitoring and bonding cost are incurred in so far as equilibrium is maintained between this cost and agency cost as posited by agency theory because at equilibrium any additional cost incurred on monitoring and bonding will no longer be beneficial (Jensen and Meckling, 1976; Fama and Jensen, 1983 and Jensen, 1983). This may explain why some managers may choose to produce only limited social disclosures while others produce more and why there was variability in the volume of CSRD of Marks and Spencer between the regime of one chairman and another as observed by Campbell (2000). It may also explain why legitimacy theory could not explain CSRD in some areas (Guthrie and Parker, 1990; Adams *et al.*, 1998; O'Dwyer, 2002; Ahmad and Sulaiman, 2004). Consequently agency and signalling theories could add some 'flesh' to the 'bones' of legitimacy and stakeholder theories by giving a clearer understanding of the role of these theories in explaining the motives of managers behind CSRD. This is consistent with the suggestions of Bebbington (1997); Larrinaga and Bebbington (2001); Gray (2002); O'Dwyer (2003); Parker (2005) and Bebbington *et al.* (2008a) that there is *"the need to put flesh on the bones of legitimacy theory explanations"* (Bebbington *et al.*, 2008a:338) to enable specific explanation of managerial motives for CSRD.

Also stakeholders' motivation is a function of the information they receive and their knowledge of the corporations' activities. Neville *et al.* (2005) argued that resource allocation decisions by stakeholders is a function of their perceptions of the corporation's reputation in terms of corporate social performance which in turn impacts on the corporation's financial performance. Stakeholder theorists (Clarkson, 1995; Donaldson and Preston, 1995; Mitchell *et al.*, 1997; Altman 2000; Neville *et al.*, 2005) therefore posit that stakeholders' resource allocation and the support they give the corporation depend on how they are motivated and what is motivating them. To gain their support therefore, stakeholders need to receive high quality and reliable signals so as to have the right motivation to support the corporation (Smith *et al.*, 2005).

3.3.5 Signalling Theory vs. Semiotic Theory

Since the decision to invest in, or support a corporation depends on the stakeholder's perception of some quality possessed by the corporation, the stakeholder therefore needs a signal or a sign that will communicate to him the qualities which will help inform his decision. However the reality and reliability of such a sign or signal depends on the meaning given to it by the stakeholder. Although the signaller or author provides a signal with an intentional meaning and can only hope that the signal is interpreted as such by the receiver, however not every signal is informative. Moreover signals may be interpreted in different ways by different people and are capable of being misinterpreted altogether if the right lexical structures are not used (Jain, 1973; Belkaoui, 1980): firstly because the audience or recipient may be diverse; secondly because the signal is produced in a permanent form which is quite different from speech, hence the communication is not simultaneous – the signal is produced at a different time to when it is received by the audience; thirdly once produced the author of the message (signal) as well as the intended purpose of writing has no relevance in the interpretation of the message (Derrida, 1978), hence the author has no opportunity to explain anything, therefore leaving the meaning extracted from the message to the interpretation given to it by the recipient.

Therefore signalling is a good communication system provided the right lexical structure is used and the right interpretation is given to it by the recipient. According to Jain (1973) and Belkaoui (1980), the lexical structure of a language is capable of influencing the thinking of the listener or recipient and hence affects their perception of the signaller. For example a corporation producing CSR reports in an attempt to build CSR reputation might be misinterpreted by stakeholders as trying to force an impression of a good corporate CSR reputation on them rather than allowing them to form the opinion themselves in which case the report might be counterproductive (O'Dwyer, 2002; Bebbington *et al*., 2008a; Unerman, 2008).

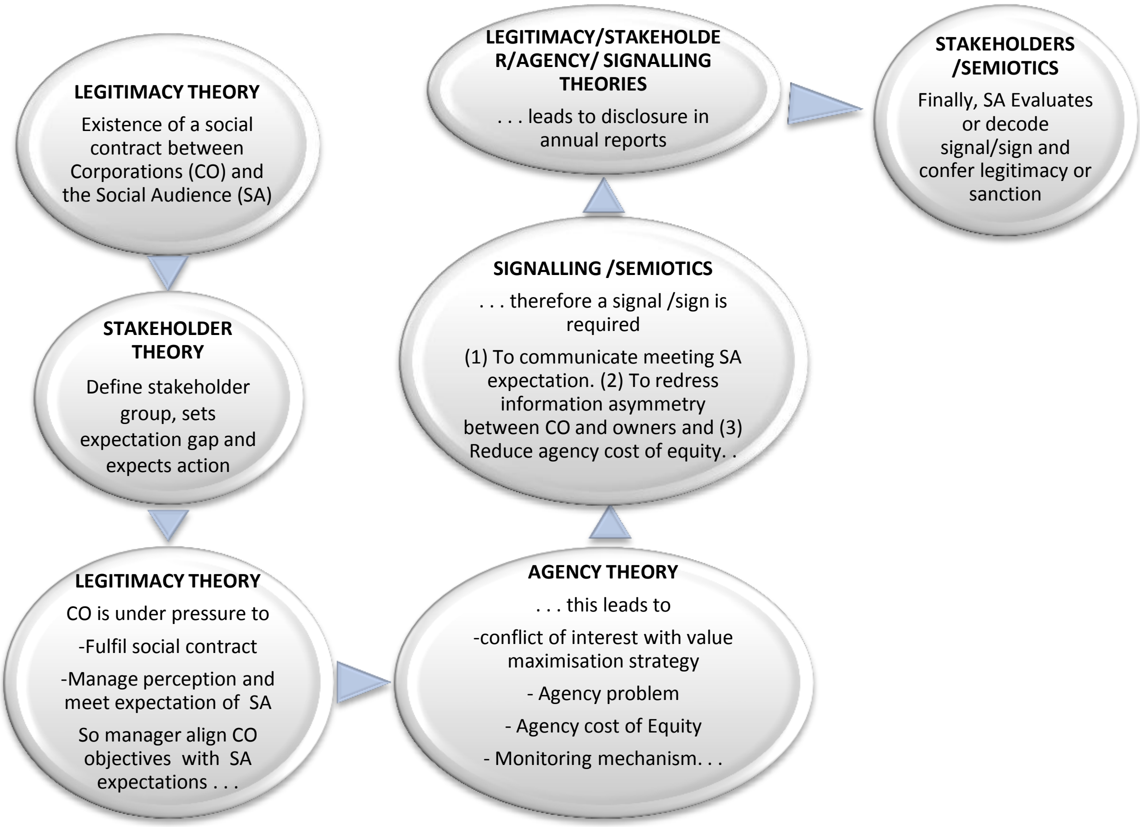
In other words, after receiving the signal, the receiver interprets it in the light of his experience and cultural knowledge of the corporation (Saussure, 1983; Chandler, 2007). According to semiotics, the signal is seen as a sign to the receiver, who looks beyond the content of the text through the interplay of codes and conventions and thus constructs reality from it (Chandler, 2007). The receiver will have to establish whether or not the signal is actually telling the truth about the corporation (Eco, 1976; Belkaoui, 2004). Semiotics theory therefore examines the link between the author, the audience and the message itself so as to establish any signification whatsoever.

The receiver may not react the first time as the ethical values of the corporation may not be perceivable with certainty the first time. As they receive future signals, probably with more detailed and quality signifiers the receiver adjusts their previous interpretation in the light of new information. The process continues and fine tunes the receiver's perception about the corporation until the receiver is able to judge with more certainty that the corporation is indeed who they say they are (Spence, 1973). In the light of this discussion it may be argued that semiotics is implicit in signalling theory as we cannot achieve an effective communication through signalling if reality is obscured and cannot be easily discerned by the recipient. In other words, to achieve effective communication, the emphasis should not only be on the signaller's intention but also on the sense the recipient is going to make out of the signal.

3.3.6 Establishing the link

In summary, Figure 3.6 below illustrates the inter-relationship of the theories discussed in this chapter and the proposed link between CCID and these theories. Succinctly, legitimacy theory posits that a social contract exists between the community and the corporation. This relationship is further strengthened and strongly supported by the stakeholder theory which defined the position of the community as a stakeholder in the corporation, while agency theory further clarifies the relationship by defining its implication as that of a principal-agent relationship.

Figure 3. 6: The inter-relationship of theories



To this end the corporation is under a moral obligation to disclose among other things its activities within the community, firstly to legitimise its activities; secondly as a form of accountability to the stakeholders, thus reporting the effect of its operation on the local community and what steps it has taken to mitigate such an effect and what contribution it has made to the local community and thirdly to reduce agency cost of equity. However for the disclosure to be perceived as reality and thus achieve a legitimising effect, it has to be a quality signal. Signalling theory posits that a signal can only be accepted as true if it satisfies the condition of being inimitable to produce by a false image builder. Nevertheless a signal can only satisfy this condition if and only if it is so interpreted by the recipients as posited by semiotic theory.

3.4 The Propositions

Taken together, the discussions in this chapter suggest that the decision by managers to disclose community involvement activities in annual reports is heterogeneous, but whatever the case, the contention is that CCID seems a signal of some sort. The legitimacy theory, stakeholder theory and agency theory all postulate that the corporation is working under a social contract with the community in which it is operating and therefore under a moral obligation of accountability. The community on the other hand also demands that the corporation fulfils this moral obligation by withdrawing its support where this is not the case (Chan and Milne, 1999). The manager is therefore under pressure to fulfil this obligation and requires a quality signal that signifies adherence to community expectations, thus leading to the following propositions:

First, CCI is disclosed in annual reports of corporations as a result of the compelling motivation to legitimise the company's activities within its community of operation as a result of the social contract in existence between the corporation and the community.

Second, management is under pressure to manage the perceptions of the social audience (the community) that would confer legitimacy by meeting their expectations.

Third, meeting community expectations would be dependent upon the perceptions of the social audience (the community) observing the corporation's legitimising actions as against what the corporation itself construed as legitimising.

Fourth, CCI are disclosed in response to the global demand for corporate social performance and responsibilities as a result of the pressure on the manager to build his reputation as manager in order to be seen as strategically aligning corporate objectives with the current global quest.

Fifth, the reputation building devices of management results in conflict of interest with shareholders thereby creating agency problems and thus brings about an agency cost of equity.

Sixth, shareholders are compelled to incur an additional agency cost of monitoring by instituting monitoring mechanisms in order to reduce agency problems.

Seventh, managers need a quality signal to respond to these pressures and redress information asymmetry and thus reduce the agency cost of equity.

Eighth, managers perceive CCI disclosure as a quality marketing signal with information content that would help redress information asymmetry.

Ninth, CCI disclosure is therefore a good communication system which is expected to benefit both the signaller and the receiver by meeting community expectations and at the same time attracting investment thus confirming its signalling quality.

Tenth, since community disclosure is considered a corporate action intended to meet the expectations of the community stakeholder group, its disclosure would signal a quality measure of community development.

However it is instructive to note that the overlapping relationship of the theories is reflected in the above propositions for instance propositions 7 to 10 seem to cut across all five theories, while propositions 2 and 4 relate to both legitimacy and stakeholder theories and proposition 3 relates to stakeholder, signalling and semiotic theories. The implication of these is that certain constructs applicable to one theory may also apply to other theories. In other words proxy variables that may be used in the measurement of such constructs may capture more than one theory.

3.5 Chapter Summary

This chapter discussed in detail the theoretical framework for this research. A total of five theories were examined and the inter-relationship of the theories and how they combined to explain CCID practices by corporations were pointed out and analysed. The theories were examined from two perspectives: legitimacy, stakeholder, and agency theories were examined to explore the likely motivation for CCID while signalling and semiotics were examined in order to explore the reality of the disclosures. The review of the theories in this context led to a total of ten propositions which sets the ground for the next chapter where the propositions are developed into research questions and testable hypotheses used in the investigation.

Chapter 4: Hypotheses Development

4.1 Chapter Overview

The previous chapter considered the theoretical structure underpinning the investigation of CCID practices and provided in-depth reviews and inter-relationships of the theories. Ten propositions were deduced from the reviews. This chapter seeks to synchronize the theories and propositions into research questions and testable hypotheses. However as noted in Chapter 3, certain proxy variables applicable to legitimacy theory will also apply to stakeholder and agency theories, while certain proxy variables applicable to agency theory may apply to signalling theory, given that these theories are complementary and consistent respectively. Firstly, in this chapter, the propositions are conceptualised into research objectives in order to properly define the variables to be tested and their operational constructs. The objectives may be stated specifically as follows:

- To establish the motivations for CCI D in annual reports
- To determine the effect the demand for CSR has on the disclosure of CCI in annual reports
- To explore the value relevance and information content of CCID to investors
- To establish whether value maximization strategy can be enhanced by reporting on the community activities undertaken by the company
- To establish whether CCID in annual reports can be read and construed as true measures or quality signal of Corporate Community Development (CCD)
- To establish if there is any active involvement in community development by corporations.

Secondly, the objectives are paraphrased into three main research questions from which testable hypotheses were developed for the investigation. Therefore, the three main research questions asked by this thesis are as follows:

1. What are the motivations for CCID in annual reports?
2. What is the information content /value relevance of CCID in annual reports?
3. Can CCID in annual reports be construed as a real measure of CCD?

Consequently, the chapter is divided into three parts with each section discussing the development of hypotheses for each of the three research questions. Section 4.2 discusses the motivation, Section 4.3 the value relevance and Section 4.4 the reality of CCID.

4.2 The Motivations for CCID

This section of the chapter focuses on developing the hypotheses that will be used in answering research question one: "*What are the motivations for CCID in annual reports"?* In line with the tenets of legitimacy theory, stakeholder theory and agency theory, the propositions from these theories suggest that management's decision to disclose community involvement activities in annual reports might be heterogeneous. Starting from the compelling motivation to legitimise company's activities, to managing stakeholder perceptions and reducing the agency cost of equity, probable motivations were identified and discussed in this section. The layout of the section is as shown in Figure 4.1 below.

Figure 4. 1: Motivations for CCID.

4.2.1 CCID Vs. Corporation's Vulnerability to Criticism

A significant number of studies (Cowen *et al.*, 1987; Patten, 1991; Roberts, 1992; Hackston and Milne, 1996; Deegan & Gordon, 1996; Adams *et al.*, 1998; Campbell *et al.*, 2003 & 2006) have investigated the relationship between a firm's disclosure policy on social information and its vulnerability to social criticism. Legitimacy theory, on one hand, stipulate that a social contract exist between the corporation and its community of operation, stakeholder theory on the other hand postulate that the community stakeholder group demands that the corporation fulfils this social contract otherwise they could withdraw their support, which could mean lower sales volume (Cowen *et al.*, 1987) to the corporation. Therefore, the corporation is under obligation to manage the opinion of the community stakeholder group about the company in order to avoid criticism.

The argument is that public opinion regarding a corporation, in terms of their reputation, the sensitivity of their operation or in terms of the direct contact they have with the community who are the end users (the consumers) of their product, will determine their vulnerability to criticism in the event of a perceived legitimacy gap (Campbell *et al.*, 2003). Campbell *et al.* (2006:98) suggested that the companies that are most vulnerable to criticism are those *"... with higher public profiles – those most vulnerable to changing social opinion."* Roberts (1992) however defines high profile industries as those having consumer visibility, that is, those having closer interactions with consumers. Consistent with this is Cowen *et al.'s* (1987) assertion that consumer-oriented industries are likely to disclose more community activities since this might well impact on the volume of sales they generate. Accordingly Campbell *et al.* (2006) concluded that these companies *"... would be the most likely not only to undertake community activities but also to report on them"* (Campbell *et al.*, 2006:98-99).

However industry classification as to high or low profile is highly contentious as there have been differing views as to what sector or industry should be classified as having high public profile and which should not. For instance Campbell *et al.* (2006) found that retailers and other consumer-oriented sectors having direct contact with the consumers are either subject to more social criticism or benefit from the best social reputation and thus regarded such as having higher public profile, while those with less direct contact with consumers and thus subject to less social criticism are regarded as having low public profile. Similarly Cowen *et al.* (1987) argued that consumer-oriented industries are more sensitive to the concerns of the community. However, Patten (1991) and Deegan & Gordon (1996) on the other hand argued that companies in industries whose operations impact negatively on the environment such as the chemical and petroleum industries are more prone to criticism and hence have greater incentive to disclose CSR information; these industries were therefore classified as having high public profile in those studies. Similarly, Adams *et al.* (1998) classified industries based on the sensitivity of their operations and the extent to which their activities impact upon their community of operation. To this end Adams *et al.* (1998) classified consumer-oriented industries as having low sensitivity. On the other hand, while Roberts (1992) mentioned consumer visibility as one of the features of high profile industries, he classified consumer-oriented industries such as food, health and personal product as low profile and industries such as airline, automobile and oil companies as high profile – probably due to the high political risks faced by these companies. Hackston and Milne (1996) also adopted the classification by Roberts and in addition included agriculture, tobacco and liquor, media and communication as high profile.

From the discussions above, many inconsistencies can be observed from the various classification criteria; however, a trend is also observable. It appeared the criterion for classification of an industry into high or low public profile depends to a large extent on the particular information being investigated and the stakeholder to whom such information is relevant. For instance, studies investigating purely social information such as Campbell *et al.* (2006) based industry classification on proximity to end-users, while those investigating environmental information (Patten, 1991; Deegan & Gordon, 1996) classified based on the sensitivity to the environment.

Nevertheless, as this thesis is investigating community disclosures, bearing in mind the need for management to manage the perception of the community-stakeholder group as stipulated by stakeholder theory, proximity to end-users seems the most appropriate. Furthermore, this method of industry classification will enable relevant comparison with the work of Campbell *et al.* (2006) who adopted similar industry classification and found that higher public profile sectors disclosed more community information than lower public profile sectors. However, while Campbell *et al.'s* (2006) study was based on five FTSE 100 sectors and covers 1974 to 2000, this current study covered a wider sample of 32 FTSE 350 sectors covering 1999 to 2009. This was to see if a different result would be obtained with a larger sample and whether the inclusion of other sectors in the sample as suggested by Campbell *et al.* (2006) would yield a different result. Consequently, the researcher expects that if vulnerability to social criticism could motivate the disclosure of community involvement activities in annual reports, then a positive relationship should exist between the volume of community disclosure and public profile. This can be hypothesised in the null form using a two tail test as follows all other things being equal:

H1: ***There is no statistical relationship between volumes of CCID (VOLCCID) and corporate public profile (PROFILE).***

4.2.2 CCID vs. Community Expectation

The discussions above suggest that the decision to disclose community involvement information could be driven by a legitimacy theory explanation where the corporation is acting to legitimise its activities within the community of operation and thus avoid criticism. However since corporate activities must be congruent with that of the community in order to achieve legitimisation (according to legitimacy theory), the current sub-topic argues that the decision to disclose may also be driven by the obligation to communicate to the community or other stakeholders that a particular community concern/expectation has been met. Additionally, this section also argues for a stakeholder theory explanation. According to the corporation/stakeholder relationship model of Wood and Jones (1995), see Chapter 3, sub-section 3.2.2.4 for details, the role of the community stakeholder in the stakeholder system is first and foremost to set the expectation gap. This is addressed by management through corporate actions and disclosures. The community then experiences the effect of corporate action and evaluate the outcome (Chapter 3, Figure 3.2).

To set the expectation gap however, the community needs to be aware of that gap or concern. Previous studies (Ader, 1995; Brown and Deegan, 1998; O'Donovan, 1999; Deegan *et al.*, 2002) have shown that such awareness is usually brought about by the media, employing the Media agenda-setting theory as an explicator for this. The theory postulates that the attention the media gives to a particular issue could lead to community concern for that issue and hence shape the expectation of the public on that issue (Deegan *et al.*, 2002). Accordingly Deegan *et al.* (2002) asserted that the *"media are not seen as mirroring public priorities; rather they are seen as shaping them"* (Deegan *et al.,* 2002:314). Ader (1995) argued that the public require the media to inform them of the importance of an issue before they are able to form their opinion on that issue. In other words, the awareness of an issue through the media would precede the setting of expectation gap. For instance, Ader (1995) found that media coverage on pollution has an effect on the importance attached to it by the public. O'Donovan (1999) found that management is aware that media publicity can impact on public perception and therefore uses disclosure in annual reports to shape public perception. Similarly Deegan *et al.* (2002) found that the issues that attracted the largest media coverage also represented the largest disclosed issues in BHP annual reports between 1983 and 1997. They noted that these issues attracted such a level of disclosures because management perceived that the issues have generated community concerns to which management is obliged to respond.

Against this background, the researcher argues that the media should represent a good measure of community-stakeholder expectation in so far as the community's awareness of concerns within the community are likely to be influenced by media coverage on such issues. Therefore a positive relationship is expected between media coverage and CCID if CCID is in response to community expectation all other things being equal. The hypothesis to be tested, in the null form, is as follows *ceteris paribus*:

H2: ***There is no statistical relationship between volume of CCID (VOLCCID) and community expectation measured by media coverage on community issues (COMNEWS).***

4.2.3 CCID vs. Accountability and Control

Following the issues of accountability and control brought about by the agency problem caused by the separation of power between managers and owners of companies (Jensen and Meckling, 1976), agency theory states that the owners would incur agency cost of monitoring by instituting corporate governance (CG) control mechanism to monitor the activities of management. In response, the theory states that management may tend to disclose more information to the principal to redress the information asymmetry in order to reduce agency cost of monitoring. In view of that, Ho & Wong (2001) describe the impact of CG control mechanism on disclosure as either "complementary" or "substitutive" (p.143). A complementary relationship exists, where in the face of intensive monitoring with varied CG mechanism; management is under pressure to disclose more information to reduce information asymmetry. Conversely where disclosure is not affected with the introduction of additional CG monitoring mechanism, then the relationship is substitutive. In which case additional CG measures will not be cost effective if it does not motivate further disclosures since some governance control measures might be substitutes of other governance measures. Accordingly, Vafeas (1999) argued that not all board activities are productive as some merely consist of routine tasks; he therefore concluded that *"... while complementary and substitute control mechanisms may explain a fraction of the variation in board activity, variables proxying for board inefficiencies may explain another fraction of that variation"* (Vafeas, 1999:115).

Nevertheless while Ho & Wong (2001) emphasised the need for more than one CG control measure in order to ensure a system of checks and balances, the importance of instituting more CG monitoring mechanisms became heightened following the upsurge in accounting and ethical scandals such as Enron, WorldCom, Parmalat, Xerox, and AOL. Consequently, a number of studies investigated the effect of various CG monitoring measures on organisational performance and reporting and found a positive relationship between disclosures and governance and other accountability measures (Forker, 1992; Ho and Wong, 2001; Wilson and Lombardi, 2001; Haniffa and Cooke, 2002; Galbreath *et al.*, 2008). These studies supported the fact that CG monitoring mechanisms have an effect on the volume and quality of various voluntary disclosures. In this thesis therefore the following governance and accountability measures are tested.

4.2.3.1 Board Activities

Three proxy variables – board size, board composition and board meetings – were used in this thesis to measure board activities. Board size was measured as total number of board members; board composition was measured as the proportion of non-executive directors to executive directors; and board meetings was measured as the total number of meetings held by the board in the year. These proxy variables have been used extensively in literature to measure board activities. For instance previous studies (Wilson and Lombardi, 2001; Webb, 2004; Galbreath *et al.,* 2008), provided evidence that larger boards are more effective in CG processes and could therefore help to ensure thorough consideration of CSR issues. However some other studies (Yermack, 1996; Song and Windram, 2004) documented that a smaller board might be more effective than bigger boards. Their argument is based on the fact that smaller boards find it easier to arrive at conclusions on issues than larger boards. Although these findings were documented in the context of corporate economic performance and reporting as against the complexity surrounding social performance and reporting, the studies tend to support the assertion of Jensen (1993) that smaller boards may improve corporate performance.

Nevertheless, Galbreath *et al.* (2008) argued that given the complex nature of social responsibility performance, it might be logical to assume that larger boards would be more effective. First management are faced with multiple and conflicting demands from multiple stakeholders and would therefore require a great deal of diversified expertise in handling such demands and information needs. Such diversified expertise may only be found in bigger boards, since smaller boards restrict the potential for diverse expertise to be brought to the board. Secondly larger boards allow for rigorous debate in the consideration of issues which lends itself to a better resolution of conflicting issues (Galbreath *et al*., 2008). Although these may lead to occasional bottlenecks, which may mean that it will take longer to arrive at decisions than smaller boards. Nevertheless, Webb (2004) asserted that most studies that documented the effectiveness of smaller boards are studies based on sectors operating within a minimal regulatory environment, while larger boards are more efficient in the financial sector with increased regulations. With the inclusion of the financial sector in our sample therefore, the researcher intends to test these assertions.

Similarly, previous studies on board composition (Forker, 1992; Ho and Wong, 2001; Haniffa and Cooke, 2002; Webb, 2004; Galbreath *et al.*, 2008) argued that since non-executive directors are considered as outsiders, it is generally believed that their presence on the board represents the interests of other stakeholders apart from the shareholders. Thus, they will have more effective monitoring power (Fama, 1980) and hence have a greater influence on the level and quality of social disclosures in annual reports (Forker, 1992; Mangena and Pike, 2005). This is consistent with their classification as dominant stakeholders by Mitchell *et al*. (1997) and Altman (2000).

According to Mitchell *et al.* (1997) the non-executive directors possess *power* and *legitimacy* by virtue of their standing in the company and would therefore have influence on board decisions, while (Altman, 2000) described them as the community group that cannot be *ignored*[10]. Webb (2004) emphasised that boards with more outside directors tend to be stronger and more effective, while boards with fewer outside directors tend to be weak, and thus increase rather than alleviate agency problems.

The last measure of board activity in this thesis is the frequency of board meetings. In fact, board meeting frequency has been used in many studies (Vafeas, 1999; Evans *et al.*, 2002; Webb, 2004; Cormier *et al.*, 2010) as an important measure of board activities and effectiveness. However, studies documenting a positive relationship between corporate performance and board meetings are few. A number of studies (Vafeas, 1999; Evans *et al.*, 2002) found an inverse rather than positive relationship between the frequency of board meetings and corporate performance indicating that board meetings increased following poor performance. The implication of this is that board meetings are more of a *"reactive rather than proactive measures"* (Vafeas, 1999:140). This is consistent with Jensen's (1993) assertions that boards in performing corporations are generally inactive and only become active in the incidence of crisis. Again, these studies investigated the corporate economic performance/board meetings relationship as against the relationship between board meetings and complex social performance.

Nevertheless, following Vafeas (1999) suggestion that board meetings can also be a useful tool in pre-empting and avoiding crisis, we hypothesize that the board will meet more frequently in response to the pressure on corporations to meet community stakeholders' expectations, which may lead to crisis if not handled with care and thus impact negatively on firm value. Therefore, following the argument that larger boards and boards with outside directors tends to meet more frequently (Jensen, 1993; Vafeas, 1999) and thus are more effective in handling social issues, the researcher expects a positive relationship with community disclosure. Consequently, all other things being equal we hypothesized in the null form as follows:

H3a: ***There is no statistical relationship between volume of CCID (VOLCCID) and board activities as measured by the frequency of board meetings (BODMET), board composition (BODCOMP) and board size (BODSIZ).***

[10] See detailed discussion in Chapter 3, sub-section 3.2.2.4.

4.2.3.3 Presence of Other Standing Committees

The literature is very thin on the effect of the existence of board committees on social disclosures; however, Cowen *et al.* (1987) examined the effect of the existence of social responsibility (CSR) committees arguing that there is a higher tendency for more social disclosure with the existence of such committees. Their findings also showed that the existence of a CSR committee was associated with human resource disclosure. They therefore argued that past studies on the determinants of social disclosure with the omission of this variable are misleading, since different types of disclosure may be motivated by the presence of certain committees. Similarly, in a more recent study, Petrovic-Lazarevic (2010) suggested an enhanced CG structure encompassing a board-level CSR committee arguing that such a committee *"ensures that the social values of the organisation are aligned with those of the community"* (Petrovic-Lazarevic, 2010:115). Consequently, the researcher seeks to establish any association between CCID and the existence of a CSR committee.

Moreover, a number of UK companies now have a disclosure committee, even though this was a prerequisite of the US Securities and Exchange Commission (SEC). This could be because many of these companies also have a presence in the US, are most often listed on the New York Stock Exchange (NYSE), and therefore need to comply with the SEC's recommendation. Nonetheless, the disclosure committee's responsibility is typically that of monitoring both financial and non-financial disclosures with the audit committee being burdened with the task of supervising the committee (Daly and Bocchino, 2007). Therefore, given that the disclosure committee sees to the accuracy and timely decisions regarding disclosures generally, the researcher considered its inclusion in the research model as crucial.

In the same vein, the task for risk management generally rests with the board with the audit committee performing the oversight funtion, however, few companies listed on the London Stock Exchange (LSE) are starting to establish standalone risk committees. This might be due to the outcome of the Walker Report on the UK banking industry, and the Financial Reporting Council's (FRC) report on all UK listed companies, impliedly recommending the establishment of standalone risk committees for all UK listed PLCs. Although only a few companies currently have a standalone risk committee both in the UK and US, a good proportion (79%) of boards with a standalone risk committee rated themselves as highly effective as against boards whose risk oversight function rests with the audit committee according to the US NACD public Company Governance Survey, 2008 (cited in Bates, II and Leclerc, 2009). Nevertheless, since the risk committee's function among others includes the management of risks, such as those that may affect the reputation and continuous existence of the corporation (like community involvement), its inclusion in the research model is equally important.

Moreover, Vafeas (1999) found the existence of other standing committees as significantly influencing board activities measured by meeting frequency. He found that boards with more standing committees tend to meet more frequently; however, such meetings, he argued, appeared to be more about coordinating the works of the standing committee rather than the direct monitoring of management. This is suggestive of the fact that more of the monitoring tasks of the board have been delegated to these standing committees in which case the board is left with the task of coordinating the activities of the committees. Arguably, therefore, this could mean that the extent to which board activities influence disclosures, will, to a very large extent, depend on what standing committee is in existence at any point in time. Moreover, the existence of certain standing committees may affect disclosures more than board activities would or perhaps in addition to board activities and of course depending on the particular task delegated to such committees. Against this background therefore, the researcher controlled for the effect of standing committees on community disclosure by testing the following hypothesis in the null form:

H3b: ***There is no statistical relationship between volume of CCID (VOLCCID) and the existence of board standing committees measured by, disclosure committee (DISCOM), risk committee (RISCOM) and CSR committee (CSRCOM).***

4.2.3.4 Other Governance Variables

Type of external auditors: The global concerns for the credibility, genuineness and accuracy of social information in annual reports have led to the demand for greater assurance regarding the reliability of the information, thereby resulting in the emergence of reporting and assurance standards such as the Global Reporting Initiative and the AA1000S Assurance Standard (ACCA, 2003). Therefore, external auditors as monitoring agents employed by the principal (Jensen and Meckling, 1976) have an important role to play in ensuring the accuracy and reliability of the reports. However, given the complexities of social disclosures and lack of proper accounting standards, the provision of assurance services will require high expertise and international exposures. It is therefore expected that the big4 audit firms having a global presence with international expertise and exposures will be more likely to influence their clients to disclose more and quality social information, while they (the auditors) also provide verification statements to that effect. The benefit to them is to be seen as championing the course of social responsibility practices as auditors and maintaining their global reputation. Previous studies (Forker, 1992; Haniffa and Cooke, 2002; Mangena and Pike, 2005) have also examined such relationships and found positive association between type of external auditors used by corporations and the level or quality of disclosures in annual reports. Therefore a positive association is expected between CCID and the use of the big4 auditors. The hypothesis in the null form is:

H3c: ***There is no statistical relationship between volume of CCID (VOLCCID) and the big4 external auditors***.

4.2.4 CCID vs. Reputation Management

While some studies provided evidence that managers produced CSR reports in order to legitimise company's activities (Adams *et al.*, 1998; Campbell, 2000; O'Donovan, 2002; Deegan, 2002; Deegan *et al.*, 2002; Ahmad and Sulaiman, 2004), others showed that CSR reports are produced to improve corporate image and manage the perception of powerful stakeholders (Guthrie and Parker, 1990; Beliveau *et al.*, 1994; Deegan and Gordon, 1996; Toms, 2002; Hasseldine *et al.*, 2005; Belal & Owen, 2007; Bebbington *et al.*, 2008a). These later studies argued that reputation management is the key motivation for CSR reporting. For instance Toms (2002) argued that CSR activity is an intangible asset and that the disclosure of it can help build environmental reputation. In his study, Toms (2002) found an association between CSR reporting and corporate environmental reputation. Similarly, Bebbington *et al.* (2008a) argued that CSR reporting is some kind of discourse aimed at managing public perceptions of the corporation's reputation. Consequently, Bebbington *et al.* regarded non-reporting of CSR issues as a "*reputation risk*" (p.340). They opined that reputation may be construed from five perspectives including CSR performance.

Guthrie and Parker (1990) documented that, in 1983, CSR disclosures was higher in companies located in countries with high CSR consciousness, such as the US (98%) and the UK (85%), than they were in companies located in low CSR conscious countries such as Australia (56%). However as societal preferences change from one period to another CSR reporting also changed as reported by Deegan and Gordon (1996) who later found that disclosures increased significantly over time in Australia between 1983 and 1991 indicating that companies disclose more as the awareness and demand for CSR information increases. This suggests that managers are under pressure not only to prove the legitimacy of their corporate activity but also to comply with societal preferences and thus build a good reputation for their corporation within community of operation (Toms, 2002; Bebbington *et al.*, 2008a) and for themselves as managers (Beliveau *et al.*, 1994).

In other words CSRD in annual reports may be regarded as reputation management device. If this is so, one may argue that the pressure on managers to disclose CSR information may also motivate community involvement activities and disclosures (CCID) as far as the manager is under pressure to build his or her reputation within the community of operation and thus prove his or her managerial quality; strategically aligning corporate objectives with the current global quest (Beliveau *et al.*, 1994). Arguably therefore, CCID may be reputation-enhancing motivated. To test this assertion however, it is imperative to control for other reputation-enhancing strategies. Beliveau *et al.* (1994) argued that reputation is multi-dimensional and that reputation risk would be better spread by getting involved in several reputation-enhancing activities.

The argument is, if *a priori* CCID is a reputation management device like other CSRD, a manager whose sole aim of disclosing CCID is reputation management is also likely to engage in other reputation building strategies alongside CCID and other CSRD (Beliveau *et al.*, 1994). In addition, such a company is expected to respond to media coverage on CCI and CSR issues, since as discussed in section 4.2.2 above, the media increases societal awareness of specific issues (Ader, 1995; Brown and Deegan, 1998; O'Donovan, 1999; Deegan *et al.*, 2002). It is therefore expected that a positive relationship would exist between CCID and other CSRD as well as CCID and other reputation-enhancing strategies such as investments in new innovations. Previous studies (Beliveau *et al.*, 1994; Hasseldine *et al.*, 2005) measured innovations using research and development (R&D) expenditure and found an association between CSRD and R&D. In a nutshell if CCID is motivated by reputation management the researcher expects that CCID should respond positively to other CSRD, media coverage on CSR issues and R&D expenditure *ceteris paribus*. Therefore the hypothesis for this section in the null form is:

H4: ***There is no statistical relationship between volume of CCID (VOLCCID) and reputation management measured by other CSRD, CSR news and R&D expenditures.***

4.2.5 CCID and Firm Specific Characteristics

Four proxy variables – size, profitability, leverage level and listing age – were used in this thesis to control for firm specific variables. These variables have been used extensively in literature to proxy for public pressure as no absolute measures have been found for public-pressure (see for example: Cowen *et al.*, 1987; Guthrie and Parker, 1990; Patten, 1991; Roberts, 1992; Gray *et al.*, 1995a; Hackston and Milne, 1996; Deegan and Gordon, 1996; Garcia-Castro *et al.*, 2010).

Size has been documented as an important proxy for public-pressure in a number of studies (for instance, Patten, 1991 & 1992; Gray *et al.*, 1995b; Hackston and Milne, 1996; Adams *et al.*, 1998; Campbell *et al.*, 2006; Garcia-Castro *et al.*, 2010). These studies argued that larger firms are under more pressure to disclose social information as it is expected that their activities will have greater impact on society than smaller companies. Their levels of operations are higher and consequently more likely to create more negative externalities. Also societal stake is higher for these companies as they have more visibility than smaller ones.

Although findings on the profitability/disclosure relationship are inconclusive, some studies found an association between profitability and social disclosures (Haniffa and Cooke, 2002; Galbreath *et al.*, 2008) while others did not (Ho and Wong, 2001; Hasseldine *et al.*, 2005; Hackston and Milne, 1996). Nevertheless, this thesis argues that good economic performance is a good incentive for more disclosures as profitable companies have better stories to tell and are more able to afford the cost of disclosures. In addition, Hackston and Milne (1996) argued that a CSR/profitability relationship could be an indication of management's ability to respond to and meet social pressure (Hackston and Milne, 1996).

Similarly, the leverage/disclosure relationship is inconclusive, while some studies found evidence of a negative relationship (Belkaoui & Karl, 1977), arguing that debt holders demand less public information than shareholders. Some studies found a positive relationship (Tsamenyi *et al.*, 2007; Galbreath *et al.*, 2008), while others found no statistical relationship at all (Mangena & Pike, 2005; Garcia-Castro *et al.*, 2010). Watson *et al.* (2002) argued that signalling theory is inconclusive as to the direction of the leverage/disclosure relationship. However recent studies have found some relationship (Galbreath *et al.*, 2008).

Furthermore, the researcher controlled for listing age since previous studies found significant relationship between disclosures in annual reports and the length of time a corporation has been listed on the stock exchange (Li *et al.*, 2008). However an earlier study (Haniffa and Cooke, 2002) found no significant relationship between disclosures and listing age. Nevertheless this thesis argues that the age of a corporation may have an influence on its interaction and involvement with its community of operation. Therefore the hypothesis for this section is stated in the null form as follows:

H5: ***There is no statistical relationship between volume of CCID (VOLCCID) and firm specific characteristics of corporations measured by the corporations' size, profitability, leverage level and listing age.***

4.3 The value relevance/information content of CCID

Annual reports were originally a medium by which management communicated with the traditional owners (investors) of the corporation in the past, and only matters addressing shareholders' wealth maximisation were included in it. However the recent inclusion of CSR information in annual reports seems like a reflection of management's awareness of the stakeholder debate. That is, the debate that the corporation is accountable not only to the financial stakeholders but to a wider stakeholder group (Freeman, 1984; Jensen, 2001). Thus it appears as if the inclusion of social information in annual reports is a way of addressing the needs of these wider stakeholders (Crowther, 2002). However, there is evidence that investors are also interested in social information (Buzby and Falk, 1978; Epstein and Freedman, 1994; Tilt, 1994; Deegan and Rankin, 1997; Solomon and Solomon, 2006); whether this has any value relevance on their decision to buy or sell shares and hence influence stock returns, is an empirical question that is yet to be confirmed.

Nevertheless while studies on the demand for social information appear to be consistent, studies examining the relationship between social disclosure and stock returns remained inconclusive. For example, Buzby and Falk (1978) found that mutual fund investors placed a relatively high degree of importance on some CSR information than they placed on others. So also Epstein and Freedman (1994) reported a strong demand for CSR information especially product safety and environmental activities while Tilt (1994) documented strong evidence that community pressure groups demanded social disclosures in annual reports and indeed made use of the information. Deegan and Rankin (1997) found that shareholders, accounting academics and review organisations all demanded disclosure of CSR information. More recent studies, such as Solomon and Solomon (2006) also documented similar evidence.

Nevertheless the capital market as a mechanism by which financial stakeholders express their acceptance or rejection of corporate behaviour/performance have been used in literature as a more effective basis of exploring the information contents of annual disclosures. For instance previous studies have documented the reaction of the market to specific data in annual reports such as annual earning numbers (Gonedes, 1973; Nichols & Wahlen, 2004) and earnings announcements (Ball and Brown, 1968; Sponholtz, 2008) and other accounting information such as accruals and cash flow (Bernard and Stober, 1989; Sharma and Iselin, 2003). However capital market reaction to social information has remained inconclusive. While some earlier studies like Belkaoui (1976); Preston (1978) and Anderson and Frankle (1980) documented market reaction to the disclosure of CSR information in annual reports, others such as Freedman and Jaggi (1982); Ingram and Frazier (1983) documented no market reaction. So also while Murray *et al.* (2006), a more recent study, documented no market reaction, another recent study by Becchetti *et al.* (2007) documented market reaction. Some of the problems attributed to these inconsistencies include the estimation techniques adopted in measuring overall market reaction to disclosures of CSR information; the variables tested, companies examined, selected time periods and contextual influences during those periods are factors identified as likely influences on the studies (Rikhardsson & Holm, 2008). Other problems identified include the fact that these studies did not account for the problem of endogeneity and time series (Becchetti *et al.*, 2007).

In addition to these submissions, this thesis argues further that the inconclusive findings may be due to the complexities surrounding the CSRD/market returns nexus. There are many CSR themes, such as health and safety, human resources, product safety, pollution control, environmental, customer satisfaction, suppliers, diversity and inclusivity, the disclosure of which may not necessarily influence stock market prices as they have no direct relevance to all investors. Invariably most studies mentioned above considered CSRD as a whole without taking into consideration the fact that the various CSR themes actually address different stakeholder concerns. Moreover if we assume, *a priori*, that maximising risk-adjusted returns is still the major concern of investors (Murray *et al.*, 2006), then most CSR themes are nothing but a shift of focus from the shareholder wealth maximisation obligation. The problem is that the benefits from some of these disclosures, if any, do not immediately become evident and so are difficult to link directly to firm value.

The argument is that although some of the CSR activities may benefit the disclosing organisation in terms of turnover and/or value added per employee, it does not necessarily follow that shareholders' value will be affected in the long term. Having said that, one cannot rule out the fact that some social activities, for example community involvement, could ultimately lead to increase in shareholders' value, in so far as such activities are perceived as effective reputation-management tools within the community of operation (Toms, 2002; Bebbington *et al.*, 2008a). Arguably however, the benefit from such social activities may include reducing the risk of labour and consumer activism, thus resulting in lower transaction cost and increased firm value. Simon *et al.* (1972) argued that some community development programmes may help build sources of human capital that the company may tap in the future; such a positive contribution, they argued, could in effect have a long-term positive impact on profits and firm value.

One argument in favour of the CCID/stock returns relationship therefore, is the fact that the community has been identified as one of the important members of the stakeholder system (Clarkson, 1995; Altman, 2000). Although no study has specifically investigated the value relevance/information content of this information, the demand for it has been documented in literature (Epstein and Freedman, 1994; Cowen *et al.,* 1987; Campbell *et al..,* 2006). Epstein and Freedman's (1994) experiments indicated that 47.6% of the respondents wanted community involvement disclosed in the financial report while another 23.58% want it, not only disclosed but also audited. Over 60% of the respondents also required that corporations disclose the social impacts of its activities on the community group. The explanation for this may be the global challenge of attaining environmental sustainability. Most of the threat to environmental sustainability comes from the operation of corporations in the form of degradation, destruction to habitat and humans within their community of operation, hence corporations not seen to be involved in social and community activities stand the risk of losing reputation, which may result in the loss of market share and invariably a negative impact on firm value. Risk averse investors are therefore likely to respond negatively if corporations are found wanting in social and community concerns (Graves & Waddock, 1994; Chan and Milne, 1999).

Another justification for the CCID/stock returns relationship is the proposition[11] that the need for management to reduce the agency cost of equity may prompt the production of a quality-marketing signal in the form of CCID. Agency cost of equity includes negative reaction from shareholders (Chan and Milne, 1999) who withdraw their investment when they perceive that management is not acting in their own interest. The argument of this thesis therefore is that the disclosure of community information may be to educate investors on their community activities and thus reduce information asymmetry and partly to signal managerial competence in handling global and community issues. Therefore, it is expected that the disclosure of this information in annual reports should have some influence on the decision to buy or sell shares by investors in the stock market, while controlling for other extraneous factors that may affect stock returns. Therefore, all other things being equal, the main hypothesis for this section of the thesis in its null form is:

[11] This thesis proposed in chapter 3 that the reputation building device of management may result in conflict of interest, agency problem and subsequently agency cost of equity due to information asymmetry.

H6: ***Stock returns have no statistical relationship with both the quality; measured by TQS and the volume of CCID (VOLCCID) ceteris paribus.***

However, to ensure the robustness of the study, the main hypothesis is broken down into 4 one tail sub-hypotheses as follows;

H6a: *Higher quality of community involvement disclosures leads to higher market performance ceteris paribus.*

H6b: *Higher volume of community involvement disclosures leads to higher market performance ceteris paribus.*

H6c: *Improvement in the quality of community involvement disclosures leads to higher market performance ceteris paribus.*

H6d: *Improvement in the volume of community involvement disclosures leads to higher market performance ceteris paribus.*

4.4 The Reality of Community Disclosure

This section focuses on answering research question three: *can CCID in annual reports be construed as a true measure of corporate community development (CCD)?* This research question is an offshoot of research question two on the information content of CCID and will be approached from two perspectives: the quantitative and qualitative perspectives. The quantitative aspect has signalling theory as its theoretical framework while semiotics is the theoretical framework for the qualitative perspective. While the quantitative perspective examined the reality of CCID from the point of view of its quality as a signal of CCD, the qualitative perspective views reality from the perspective of the audience at which the report is aimed. This is discussed further in turn in the next two sub-sections.

4.4.1 Reality of CCID – Quantitative Perspective

As discussed in previous sections, the decision by managers to disclose can stem from either the compelling motivation to respond to public pressure on CSR performance and reputation building (Tom, 2002; Hasseldine *et al.*, 2005) or to convince community stakeholders of their CCD performance. Whatever the case, the contention of this section is that CCID is a signal of some sort. Signalling theory[12] as the theoretical

[12] The theory posits that if information asymmetry exists between the managers of a corporation and its stakeholders the managers can reduce or eliminate the information asymmetry by providing the necessary information to assist stakeholders in their decision making process (Spence 1973).

foundation for this section was discussed in detail in Chapter 3. Nonetheless, one of the conditions for its applicability is information asymmetry in a competitive environment (Spence, 1973; Watts and Zimmerman, 1986), in which case the corporation possesses some qualities that the stakeholders are not aware of and hence signals these qualities through annual reports.

However for a signal to be accepted as true it must satisfy the condition of being inimitable to produce by a false image builder (see Chapter 3 for detailed discussion). To this end for a CCID to qualify as a quality signal of actual community development, the disclosure should give specific details of quantifiable and verifiable difficult to mimic projects (Toms, 2002). A community disclosure that contains general statements of policy that cannot be matched with the actions of the reporter cannot be said to be a quality signal of actual community development.

Following from the above discussion therefore, this thesis contends that the quality of a reliable signal of actual community involvement performance must be consistent with the volume of CCID (VOLCCID) over a period of time. In other words if for instance, the quality of CCID (measured by variable TQS) is obtained by allocating points for each mention of specific verifiable projects (as suggested by Toms, 2002; Hasseldine *et al.*, 2005; Freedman and Stagliano, 2008) and zero is allocated for general statements, then a positively strong association should exist between TQS and VOLCCID. It follows that CCID characterised by mere general statements of policies would have a very low quality score which would either have a weak or no relationship at all with the volume (VOLCCID) or VOLCCID will have only a minuscule influence on TQS if only few inimitable projects were mentioned in the CCID in the annual reports. It is therefore expected that a very strong positive relationship should exist between the quality score (TQS) and the volume of CCID contained in annual reports across time if CCID is a true measure of CCD, while we control for the effect of other variables that may also affect TQS. Therefore the null hypothesis is as follows:

H7: ***The quality of CCID measured by TQS will increase significantly as the volume of CCID increases over time while we control for CG and firm specific characteristics.***

4.4.2 Reality of CCID – The Qualitative Perspective

The above viewpoint looks at the reality of CCID from managerial perspectives. Management perceived that investors and other stakeholders need to be aware of certain qualities possessed by the corporation in order to help inform their decision whether to invest or support the corporation as the case may be. Hence, management provides some signals in the form of CCID in annual reports with the hope that the signal is interpreted as intended. However, whether the signal or sign will be interpreted as a true quality of community performance depends on the meaning given to it by the receiver.

Because the receiver or audience is diverse and the signal is produced at a different time to when it is received by the audience, the author has no opportunity to explain himself hence leaving the interpretation of the signal entirely to the audience (Derrida, 1978). Arguably therefore, in addition to the empirical test above, if indeed CCID as disclosed in annual reports represents a true measure of the corporations' community development performance, then it should be capable of being interpreted as such by the audience or recipient of the message. Semiotics seems the best way to investigate this (see Chapter 3, Section 3.2.5 and 3.3.5 for detailed discussion on semiotics). Although the semiotic signification of signs is completely arbitrary, nevertheless semiotics investigates the link between the author, the audience and the message by looking beyond the content of the text through the interplay of codes and conventions in order to establish the reality of the message (Eco, 1976; Chandler, 2007).

Previous studies (Fiol, 1989; Macintosh *et al*., 2000; Crowther, 2002; Macintosh and Baker, 2002; Yusoff and Lehman, 2009; Davison, 2011) have also applied literary perspectives such as semiotic analysis in the interpretation of corporate and environmental reports. Fiol (1989) examined the semiotics of CEOs' letters in annual reports and was able to establish that these letters revealed the link between organisational beliefs and strategic behaviour which has hitherto been very difficult to capture with conventional research methods. Macintosh *et al*. (2000) and Macintosh and Baker (2002) drew on radical semiotics and Baudrillard's orders-of-simulacra theory to investigate the reality of accounting information and concluded that a literary theory perspective gives a different view of the nature of accounting and accounting reports.

Similarly, Yusoff and Lehman (2009) found semiotics very useful in "making sense" (p.241) of corporate reporting practices in their investigation and comparisons of corporate reporting practices in Malaysia and Australia. Also Crowther (2002) investigated the binary opposition between corporate reporting and environmental reporting using the semiotic stage and found that corporate performance in both financial and environmental dimensions cannot be dissociated from one another. A company performing well financially was found to be performing well in both dimensions, which appears contrary to the findings of studies adopting conventional research methods such as Hackston and Milne (1996); Ho and Wong (2001); Hasseldine *et al.* (2005) who found no relationships between profitability and social disclosures.

Motivated by the findings of these studies and the interpretive power of semiotics, the researcher is interested in knowing whether the results that would be obtained through conventional methods as suggested in the previous sub-section will be sustained when the text of the narrative disclosures are subjected to semiotic analysis. Hence, the disclosures will be interpreted from the viewpoints of the audience. In the Wood and Jones (1995) model, discussed in Chapter 3, the community (audience) is responsible for setting the expectation gap in the first place and hence should be in a better position to evaluate whether or not the outcome of the CCID meets community expectations.

Preston (1975), looking at it from the point of view of the organisation, developed a framework for managing social issues. In his framework, he recognises the fact that corporations would: first, be aware and/or recognize a social issue (i.e. establish an expectation-gap); secondly, the corporation plans on solving the issue and incorporate such plan into its corporate goal; thirdly, the corporation responds in terms of policy development, and finally implementation of the policy. This framework is quite similar to that of Wood and Jones (1995) discussed earlier. However, in addition, the Wood and Jones (1995) model in Figure 3.2, Chapter 3, incorporated the evaluative stage where the community stakeholder group evaluates the effect of corporate actions. Therefore following from the Preston's (1975) framework and the Wood and Jones' (1995) model, the following propositions will be considered in analysing the text of the CCI narrative reports using the Greimasian narrative semiotics method[13]:

[13] The Greimasian narrative semiotics method and the justification for its suitability for this research is discussed in Chapter 5, Sub-section 5.4.3.2 and Chapter 8, Section 8.3.2

Proposition 1a
The written report on community involvement shows evidence of corporations' concern or awareness of specific needs identified within their community of operation.

Proposition 1b
The written report on community involvement shows evidence of the corporations meeting the specific needs of the community within their community of operation.

Proposition 2a
The written report identified future development targets in the community of operation.

Proposition 2b
The written report considered future targets as a reflection of further community developments along with past performance.

4.5 Chapter Summary

This chapter focused mainly on the synchronisation of the propositions deduced from the review of theory in Chapter 3 into three main research questions and the development of relevant hypotheses for each of the research questions. A total of seven main hypotheses were developed, five of which were based on the interactions of legitimacy, stakeholder and agency theories, while two were based on signalling theory. Two pairs of propositions were also developed for the semiotics of CCI reports. The relevance of each of the hypotheses to the research questions and their operational construct were duly justified. The next chapter provides details of the methodology adopted in testing the hypotheses, while Chapters 6 to 8 present the empirical results of the study. Chapter 6 focuses on the results for research question 1 on the determinants of CCID, while Chapter 7 focuses on the information content of CCID, thereby answering research question 2. Chapter 8 focuses mainly on the reality of community disclosure in annual reports from both the empirical and semiotic perspectives.

Chapter 5: Research Methodology

5.1 Chapter Overview

This chapter discusses the research methodology used for this study. The approach and challenges encountered in conducting the research are discussed. The rest of the chapter is divided into four. The first section discusses the philosophical and epistemological orientation of the research. In the second section, the researcher examines methods that have been adopted by previous researchers in similar studies, pointing out the benefits and drawbacks of these methods in order to appropriately situate the methodology suitable for this study. The third section discusses in detail the method adopted in this research while justifications are given for not adopting alternative methods. The fourth section discusses the challenges and the limitations of the research methods adopted, arguing that given the nature and sensitivity of the research questions and the scope of the research, the research strategy and approach adopted for this study is the most appropriate under the circumstances.

5.2 Philosophical/Epistemological Assumptions

Whilst it is not the intention of the researcher to join in the complex and enduring debate (Burrel and Morgan, 1979; Bhaskar, 1975 & 1989, cited in Bryman, 2008a; Creswell, 1994; Cooper and Schindler, 2002) surrounding the best philosophical reasoning for social research, the need to clarify the philosophical stance of this current research from the outset is necessary as this forms the basis to which subsequent discussions in this chapter will cling. Principally, the philosophical reasoning for social research centred on the perception of the social world from the researcher's point of view and their conceptualization of what constitutes social reality (Bryman, 2008a). Philosophers over the last two millennia have debated how best the world can be perceived and understood (Trochim, 2006). The various schools of thought in this debate are positivism, post-positivism (realism), interpretivism, relativism, subjectivism and hermeneutics, Structuralism and Post-structuralism, deconstructivism, constructivism and feminism (Trochim, 2006; Bryman, 2008a; Saunders *et al.*, 2009). However for the purpose of this thesis, only the schools of thought relevant to the current study are discussed in this chapter.

Positivism reasoning believes in the natural science method of theory testing, which is observation of social reality, precision, control and measurement (Remenyi *et al.*, 1998). The stance of the positivist is that social reality can be measured and explained scientifically in the same way as the molecules and atoms of the physical sciences and that such measurement are reliable, valid and generalizable in predicting cause-effect relationships (Bryman, 2008a; Saunders *et al.*, 2009). They argued that the best way to understand a phenomenon is to develop existing theories into testable hypotheses. The hypotheses are tested, using quantifiable observations and are either accepted or rejected (Saunders *et al.*, 2009). However, while the positivists believe that events can be predicted and controlled with accuracy, some social researchers over the centuries hold a contrasting view to investigating the social world. For instance the interpretivists argue that humans, who are the main focus in social science investigation, cannot be subjected to the same scientific investigation as the natural or physical sciences as the following discussions show.

The interpretivist school of thought, known as interpretivism, developed from the logical reasoning of how human beings construe the world around them, known as *"phenomenology"* (Bryman, 2008a:13) and the fact that humans are in a continuous process of interpreting the world around them and acting on the meaning of their interpretation known as *"symbolic interactionism"* (Bryman, 2008a:14). The argument of the interpretivist therefore is that social science researchers should seek to investigate social phenomena using methods that will look at the social world from the point of view of the humans who live their daily lives within the social world (Bryman & Bell, 2007). This argument is born out of what is emphasised at the end of the investigation. For instance while the positivists seek to explain human behaviour through scientific means, the interpretivists seek to understand human behaviour from their (humans) daily interactions within the social world (Bryman, 2008a).

However another school of thought, post-positivist (also known as critical realist) is of the opinion that a phenomenon should be studied at different levels in order to gain a richer understanding. Bhaskar (1989), cited in Bryman (2008a) argued that the only way to understand a social behaviour is to first understand the event or discourse that gave rise to it. A researcher's philosophical stance therefore plays a vital role in the research approach and strategy used in conducting the research. These issues are discussed further in subsequent sections.

5.3 Research Approaches and Techniques

5.3.1 Deductive vs. Inductive Reasoning

Depending on the philosophical standpoint of the researcher, the research approach adopted in conducting a research may be broadly grouped into deductive or inductive approach. In the deductive approach, testable propositions or hypotheses are deduced from existing theories. The hypotheses are tested with data collected for that purpose and are either confirmed or rejected, thus leading to the acceptance and/or further clarification or extension of existing theories (Bryman, 2008a). The inductive approach however works in the opposite direction, that is, events are observed and a pattern or regularity is identified. This leads to the development of some tentative hypotheses and subsequently some conclusions or theories (Trochim, 2006; Saunders *et al.,* 2009). While deductive reasoning seeks to establish a cause-effect relationship between variables, inductive reasoning seeks to gain an understanding of human interpretations of social phenomena (Bryman, 2008a).

The deductive approach has its background in the scientific method of research and therefore tends towards the positivist philosophical stance, while the inductive approach emerged from the interpretivist philosophical stance, that is the social scientists quest to find a way of investigating social behaviour by first developing an understanding of how humans interpret their social world (Bryman, 2008a; Saunders *et al.,* 2009). These two approaches to conducting research drive the research technique, which is the way the data for the research are collected and analysed. The two main research techniques identified are 'quantitative' and 'qualitative' techniques (Bryman, 2008 a&b), although some researchers tend to use both in their research thereby giving rise to another terminology known as the 'mixed method research' (Bryman, 2008a).

5.3.2 Quantitative vs. Qualitative Techniques

The quantitative technique basically refers to the collection of quantitative data mostly numeric in nature and the analysis of such data using scientific or statistical methods of analysis, thus favouring positivist reasoning. Consequently quantitative research adopts the deductive approach of deducing testable propositions, which are tested on specific data and either confirmed or rejected. Qualitative techniques on the other hand may adopt the inductive approach to research and shares the views of the interpretivist; it refers to the collection of qualitative data which are mostly non-numeric in nature; these may be text, images or video clips (Bryman, 2008a; Saunders *et al.*, 2009). Qualitative researchers are more concerned with accurately describing, decoding and interpreting the meanings of a phenomenon as it occurs in its natural social setting (Marshall & Rossman, 1989; Fryer, 1991; Bryman, 2008a). Following the interpretivist ideologies, qualitative research may be said to be the study of symbolic discourses such as written words or conversations and the interpretive values used to make sense of symbolic discourses, it is also concerned with the study of the structural values that could assist with the interpretation of the discourses, such as physical setting, events and the role of the participant (Bryman, 2008a).

However, like the on-going philosophical debates mentioned earlier, complex debates also abound (Patton, 1980; Fryer, 1991; Cassell & Symon, 1994; Robson, 2002) on the best research techniques – qualitative or quantitative – to adopt in research. Nevertheless, it is instructive to note that although some researchers may prefer one technique over the other, each of these techniques has their specific strengths and weaknesses, which should be identified and addressed by the researcher (Bryman, 2008a; Saunders *et al.*, 2009).

The strength of quantitative technique lies in the fact that it is generally regarded as more efficient as it lends itself to thorough analysis of testing hypotheses and determining causal relationships through the application of scientific and statistical techniques (Saunders *et al.*, 2009). Researchers tend to know in advance what they are looking for before embarking on data collection. All aspects of the study are cautiously designed. The research problems are known beforehand and specifically stated. Similarly the dependent and independent variables are clearly and precisely specified before commencing the research, and unlike qualitative research the original objective of the research is followed through to the end. The personal feelings of the researcher do not count as the researcher tends to be objective and separated from the focus of the study. The results from quantitative research are often regarded as more generalizable due to the use of more representative data involving larger samples or mass surveys (Bryman, 2008a; Saunders *et al.*, 2009).

Nevertheless, the quantitative methods has been criticised for its application of scientific models to the study of the social world. Although the method is considered more efficient in that it lends itself to the testing of hypotheses, the argument is that it may miss out on important contextual details of the studied phenomena (Bryman, 2008a). Unlike qualitative research, the outcome from quantitative research is usually limited to that which was originally stated before commencement due to the structured design of research (Fryer, 1991; Bryman, 2008a). Unfolding events are not usually considered and are not allowed to influence current research.

On the other hand, benefits attending the use of qualitative techniques include its ability to conduct in-depth study of the perceptions, attitudes, behaviours and experiences of the participant through such methods as in-depth interviews, focus groups, ethnography and participant observation thus allowing interactions with the research subjects rather than using a surrogate (Bryman, 2008a). According to Bryman, these data collection methods are quite flexible and provide a holistic view of the phenomena. It provides in-depth understanding of participants' personal experience of the phenomena **(**Patton 1980). It is cost effective as only small samples of people are required as against large scale samples for surveys, typical of quantitative research. Unlike the numeric data of the quantitative research a more realistic feel of the social world can be experienced with qualitative research (Robson, 2002). Additionally qualitative research is very useful in defining sequential patterns and change and in describing complex phenomena. It is less likely to impose restrictive *a priori* classification on the collection of data. Unlike the quantitative technique, changes occurring during the conduct of the study are easily taken on board and may influence the focus of study since the direction emerges as the study unfolds (Cassell & Symon, 1994).

However, despite the several benefits of qualitative research discussed above, the technique suffers from some major drawbacks. It is very subjective and the researcher's personal characteristics can easily influence the research, hence it is less able to be replicated or generalized as different researchers will arrive at different conclusions even with the same information (Bryman, 2008a). The fact that changes occurring during the study are accommodated could lead to departure from the original objectives of the research (Cassell & Symon, 1994). It requires a high level of expertise and hence is not easy to adopt by inexperienced researchers (Bryman, 2008a). Due to the inability to differentiate between the quality and quantity of information given by different respondents, conclusions might not be reliable and may be inconsistent (Cassell & Symon, 1994). Unlike quantitative research, qualitative research is not able to test hypotheses and theories and hence cannot be used to establish causal relationships between different occurrences; it is difficult to make quantitative predictions (Robson, 2002). Also in comparison to quantitative research, both the collection and analysis of data takes considerable time and effort (Bryman, 2008a).

5.3.3 What Research Choice?

The discussions on the distinctions and the strengths and weaknesses of quantitative/qualitative research methods above suggest that while each of the methods has positive characteristics both methods also have their flaws and so one method cannot be said to be superior to the other. Nevertheless, some scholars (Greene *et al.*, 1989; Bryman & Bell, 2007; Creswell & Plano Clark, 2007; Bryman, 2008a) have questioned their distinction in terms of their epistemological orientation. These scholars argued that the association of the positivist epistemology with natural science and hence quantitative research techniques and that of interpretivism with qualitative research techniques is not absolute but rather predilection. Further, they argued that if both methods are combined in the same study, their opposing views could complement each other and thus result in gaining the best of both research methods. Combining the two methods in this manner is referred to as mixed method research. Researchers adopting the mixed methods approach either combine the quantitative and qualitative data collection methods and analysis in the collection and analysis of data or convert qualitative data into quantitative that can be analysed scientifically or *vice-versa* (Bryman, 2006 & 2008b).

However some authors argued that the two methods are incompatible as two competing paradigms (Smith & Heshusius, 1986 – cited in Bryman & Bell, 2007; Morgan, 1998), and therefore should not be combined. However the paradigmatic argument is far-fetched as Bryman & Bell (2007), Creswell & Plano Clark (2007) and Bryman (2008a) were able to establish some connections and areas of overlap between the two research methods (Bryman & Bell, 2007:626-638; Bryman, 2008a:588-599). Greene *et al.* (1989) maintained that combining both research methods in the same study is important in understanding social reality from human experience. Similarly, Bryman (2008b) asserted that combination of the two methods is not only appropriate but also very productive when an overlap is imminent; arguing that capitalising on the strength of both methods can secure additional information. In this way the perceptions of both the positivist and interpretivist of what constitutes social reality may be combined in order to obtain multiple meanings from similar experiences, while experiences may also be converted into values from which to make sense of the world (Greene *et al.*, 1989; Bryman, 2008b).

In this thesis, the researcher shares the views of these authors, bearing in mind the fact that social reality is generated by mechanisms that may not be readily observable but can only be detected through their effect. Arguably therefore, the researcher concurs with the fact that, social reality should be perceived, not only as capable of being measured (positivism), but also unique to each individual (interpretivism). This position is similar to the stance of the post-positivist (critical realist), which is usually referred to as the mid-way between positivism and interpretivism (Trochim, 2006; Bryman & Bell, 2007). The critical realist argued that observations and measurements on their own are imperfect as it is difficult to draw conclusions with certainty and accuracy, given that the social world is constantly changing (Trochim, 2006; Saunders *et al.*, 2009). Furthermore they argued that since all observations are theory-laden, objectivity and accuracy can only be approached (not perfectly achieved), by triangulating across multiple perspectives of the social world in order to get as close to reality as possible (Trochim, 2006; Bryman & Bell, 2007; Bryman, 2008a).

Against this background therefore, the researcher believes that the objectives and the longitudinal nature of the current research lend themselves to the use of mixed methodologies, given the assertions that the choice of research methods depends, to a very large extent, on the objectives and nature of the research itself and the sensitivity of the research questions (Bryman & Bell, 2007). Consequently, given the nature and the objectives of the first two research questions, the researcher maintained the positivist stance in answering these questions. However, the researcher used the mixed method approach and therefore a post-positivist stance for the third research question given the sensitivity of the question. The question seeks to unravel the reality of corporate community investment as disclosed in annual reports in the wake of the demand for corporate social responsibility and disclosures. Therefore, given the objectives of the research, the researcher opined that a critical-realist's perspective as well as a mixed method approach will more likely offer a complete picture of the phenomena. The suitability and justification for these research choices are discussed further in the next section.

5.4 Research Methods and Designs

The main focus of this research is to investigate the genuineness and raison d'être of CCID in annual reports. To do this the researcher adopted a holistic approach employing an extensive theoretical framework and asking three main questions. Firstly, what are the motivations for CCID in annual reports? Secondly, what is the information content /value relevance of CCID in annual reports? And lastly, how real is CCI as disclosed in annual reports?

As mentioned earlier, the study used both quantitative and qualitative techniques of data collection and analysis for this investigation, though in general the research is more of a quantitative study than qualitative. Hypotheses are developed to provide answers to all three research questions above and tested with panel data regression models. In addition, the researcher performed a qualitative analysis of research question three using the narrative semiotic method. Essentially the researcher is interested in knowing whether the results obtained through conventional methods will be sustained when the text of the narrative disclosures are subjected to semiotic analysis. The research strategies and analysis methods are discussed further in the following sub-sections.

5.4.1 Research Strategy

5.4.1.1 Cross-country Study

As one of the objectives of this study is to investigate the effect the pressure on management to prove their social responsibility performance would have on community involvement disclosure, the researcher originally intended that a cross-country study (Adams *et al.*, 1998) be carried out to measure and compare the volume of disclosure in countries where there is not much pressure on management with countries with a lot of pressure. The measure was to be determined by reviewing the annual reports of companies in sensitive industries located both in countries with high CSR consciousness and those in less CSR conscious countries. However the researcher discovered that countries with less CSR consciousness are mostly developing countries (Belal and Owen, 2007) and that there are usually striking differences between developing and developed countries. Besides operationalising management pressure is often open to a lot of contest. Additionally, as is the case with cross-country studies, data availability was a major constraint. Moreover, Toms (2002) expressed the need for caution as voluntary disclosure in countries with less demand for CSR and hence fewer regulations might just be a "self-congratulatory" phenomena and therefore not reliable (Toms, 2002:265).

Consequently, and in addition to the fact that the study's focal point is mainly on community involvement disclosures, the study focused on the UK. Firstly, due to potential difficulties with cross-country studies, such as data availability, cultural differences, accounting system, government and legislative system and the awareness/attitudes of the society towards the legitimate role of corporations. Secondly, restricting the study to one country will enable the researcher to compare like with like. That is, companies within the same community, from the same economic environment and therefore subject to the same homogenous cultural and institutional regulatory and legal context and who are also likely to be influenced in the same way by society's expectations (Adams *et al.,* 1998).

5.4.1.2 Longitudinal/Cross-sectional Study

Following from the decision to limit the sample to only one country as discussed above, the researcher decided to consider samples over a longitudinal period (Campbell, 2000 & 2006; Watson *et al.,* 2002) to investigate changes in community disclosure level over the period *vis-à-vis* the increased campaign for corporate citizenship. Campbell *et al.,* (2006) argued that longitudinal study gives an overall picture of the popularity of a category of disclosure. Moreover in literature longitudinal studies have been used to investigate voluntary disclosures. Watson *et al.,* (2002) adopted longitudinal study to investigate voluntary disclosure of ratios in annual reports. Also Campbell (2000) investigated the causes of variability in social disclosure of Marks and Spencer over a longitudinal period.

Besides, using longitudinal study allows the opportunity to examine the same phenomenon over time and across firms with opportunity to capture time effects as well as cross-sectional variations (Campbell, 2000; Watson *et al.*, 2002; Campbell *et al.*, 2006). This would allow for better inferences because change in itself is pervasive in nature and the use of discrete observations such as a one-shot cross-sectional survey of firms will not suffice to measure changes in organisational behaviour or attitude towards a specific strategic decision (Singer and Willett, 2003:3). For instance, the motivation to disclose social information at one time may not necessarily be the same if the same phenomenon is observed at another time, which explains why Campbell (2000) found variability in the volume of CSRD in Marks and Spencer over a longitudinal period. Dougherty (2007) argued that although a cross-sectional observation may give an idea of how and why such information is disclosed, such results would be spurious and invalid due to unobserved heterogeneity; that is, the omission of some hard to observe firm-specific variables, such as the organisation's orientation and culture, the management's decision-making style and the quality and ethical values of its top management.

If these sorts of variables and other similar hard to measure variables are present in our dataset, then the possibility of omitting very important variables from our regression model is very high. And since these variables (management quality, ethical values, orientation and culture) are also capable of influencing the disclosure of community involvement activities in annual reports, there is the need to find a way around the problem. One way of solving the problem is the use of a panel dataset (i.e. both longitudinal and cross-sectional). One of the greatest features of a panel dataset is its ability to control for these unobserved variables that could also affect CCID, which could otherwise be omitted if a single cross-section data was used. Unobserved variables could either be those that are constant over time such as cultural orientation or the geographical location of the company or those that vary over time such as ethical values or management quality.

For instance Campbell (2000) employed time series analysis to investigate the causal effect of changes in the volume of CSRD in Marks and Spencer over a period of 27 years. In this study Campbell noted that the variability in CSRD over the period under investigation might have occurred as a result of other factors (such as changes in societal opinion due to high unemployment level and/or oil price rise) which were omitted or unobservable at the time of the study. However he recognised the challenge and difficulties of finding a suitable and reliable technique for accurately measuring and analysing opinion change in the context of legitimacy theory. Campbell admittedly describes this as a "conspicuous omission" in the literature (Campbell, 2000:93). He therefore argued that a wider cross-sectional sample over a longitudinal period should provide a "richer dataset" (p.97) for the estimation of causal inferences.

5.4.1.3 Period of Study

The year 1999 was selected as the beginning of the longitudinal study because firstly, this year marks the tenth anniversary of the largest oil spill in Alaska and secondly because it is the year that preceded the millennium. Previous researchers (Gamble *et al.*, 1996) believe that the Alaskan *Exxon Valdez* oil spill brought to the attention of world the environmental effect of corporations' activities and the fact that corporations have to be held responsible for their actions. To this end, various studies have investigated the immediate effect of the oil spill on CSRD (Patten, 1991 &1992; Gamble *et al.,* 1996; Walden and Schwartz, 1997) and found that disclosure increased significantly in the periods immediately after the oil spill as against the level of disclosure prior to the oil spill (Cowen *et al.,* 1987; Patten, 1991 and 1992).

Therefore, as the years go by with increased awareness and demand for corporate responsibility coupled with the anxiety and social delusions that characterized the new millennium, it is intended that this study investigate how the passing years have affected CCID. Recalling the discussions in Chapter 2, community involvement evolves from philanthropic giving of organisations before World War II and metamorphosis into community development after World War II. Therefore, as CSR has now been embedded into corporate culture and social responsibility metamorphosis into corporate citizenship, this thesis argues that corporations will be inclined to be more involved in, and also disclose, community activities to prove that they are good corporate citizens. However with increased awareness and more reports to make on other environmental issues, it is intended to investigate the effect of this on community disclosure over the years.

To this end, the sample was taken over eleven years up to 2009. The intention was to observe how the increase in the demand for social responsibility over the years has affected the disclosure of community information. This is born out of the fact that as the demand or perceived demand of society changes, it is likely to affect corporate disclosure polices as argued by Deegan and Gordon (1996:191) *"... if we accept that community values will affect corporate disclosure policies, then we would expect corporate disclosure policies to change as community preferences change"*.

5.4.1.4 Annual Reports

This research focuses on disclosures through annual reports alone. Firstly annual reports appear to be the most authentic communication medium recognised and acceptable to investors (Guthrie and Parker, 1990; Adams *et al.*, 1998) and over which the media has little or no control and therefore are not subject to distortions. Secondly the use of annual reports allows for adequate comparison with other companies. Thirdly the annual reports happen to be the only documents routinely sent out to investors (Adams *et al.*, 1998). Finally, the annual reports remain the only document reporting the corporate activity of the company as a whole (Crowther, 2002). Even though companies are beginning to use alternative reporting media such as the internet, advertisement, press releases and standalone reports to communicate their social involvement activities. Crowther (2002) criticised this practice and argued that a single account of the company's activity is best as this would *"present a unified picture of the organisation"* (Crowther, 2002:297).

However, there have been criticisms on the use of annual reports alone as a medium of investigating CSRD (Unerman, 2000; Campbell *et al.*, 2003 & 2006) since there are other means of communicating CSR as mentioned above. Nevertheless, while there exist recent studies on CSRD on the internet (Maignan & Ralston, 2002; Adams & Frost, 2006; Branco & Rodrigues, 2008), the use of annual reports alone in this research is defensible. Firstly, annual reports are statutorily required. They provide the singular most comprehensive source of communication with the firms' stakeholders and serve as reliable source of firms' evidence for numerous stakeholders including creditors and the government. Secondly, as this is a longitudinal study involving samples of reports on an annual basis, other means of communication would not be suitable. This is because other reports are not produced consistently on an annual basis. For instance, it was observed in the gathering of data for the pilot studies of this research that not all companies produced standalone or internet reports annually. While some produced the reports on a biannual basis (for example Cadbury) and others produced annually, some did not produce at all or produced in an inconsistent manner. The argument is that if these other communication media were used in this research, the effect will be that for example, a company that produces CSR reports on a biannual basis will be classed as having no report in a particular year if its year of producing annual reports falls outside the sampled years, hence invalidating the samples. Therefore since there is no regulation as to the frequency of producing standalone or internet reports as far as CCI disclosure is concerned; the researcher opined that standalone and/or internet reports are not suitable for proper comparison and for the purpose of this study.

Furthermore, arguments for the use of annual reports have been documented in literature (Gray *et al.*, 1995a&b; Deegan and Rankin, 1996; Campbell *et al.*, 2006). Gray *et al.* (1995b) argued that since all information getting to the public may be seen as a form of 'accountability-discharge' (Gray *et al.*, 1995b:82) and there are a whole lot of other sources by which corporations communicate their social activities (Zéghal and Ahmed, 1990), then one can never be too sure that one has indeed captured all information sources as this is practically impossible. Although if the objective of the study were to capture all CCID made by an organisation, then one might be obliged to identify and monitor all such information sources as much as possible. However, since the objective of this study is to investigate CCID as a corporate activity, the annual reports seem the most suitable for this purpose.

In addition, as investors would always like to see expenditure affecting the return on their investment, CCI disclosures in annual reports alongside financial disclosures will provide a good opportunity for investors to examine expenditure on community activities and is therefore a good way for management to justify the company's expenditure on community activities (Gray *et al.*, 1995b). Campbell *et al.* (2006) also suggested that disclosure in annual reports may be used as a form of risk management, that is, the risk of losing their reputation in the society which may result in loss of sale and ultimately reduction in investors' wealth. Therefore, as the annual reports remain a yearly document automatically circulated among investors and remains the first point of call for interested parties in gathering information about a company, it is argued that they remain the most valid source of obtaining information on community disclosure for the purpose of this research.

Nevertheless the use of annual reports alone is not without its limitations; as Clatworthy & Jones, (2006) observed that the narrative contents of the annual reports, especially the chairman's statement, is more of impression management than the expression of the truth and fairness of the company's performance. Where this is so, then the reliability of the information extracted from the annual report may be in doubt. Overall, however, it remains the most reliable and veritable source of companies' information.

5.4.1.5 Access Issue

Annual reports were accessed and downloaded mainly from two sources: the Mergent Online Database and the company website as Adobe Acrobat files. The soft copy was preferred as it allowed the disclosures to be copied and pasted into Word documents for ease of counting and content analysis purposes. However wherever any year could not be obtained from any of these sites, the hard copy of such a report was requested directly from the company in question. In order to ensure longitudinal stability and consistency in the years selected, only companies incorporated and listed on the London stock exchange before 1999 were included in the sample.

5.4.1.6 Sample Design

The pilot samples

The samples for pilot studies 1 and 2 were taken from the top 100 companies for corporate responsibility (BITC[14], 2008). Pilot (1) sample was necessitated by the need to test and refine the data collection instruments and to help develop the research methodology for the main study. However, the sample was not a good representative sample of the UK companies; firstly the sample size was very small – 12 companies with 72 observations, secondly it was drawn randomly from the BITC ranking of the top 100 companies for corporate responsibility, thirdly the annual reports considered were for every two years. Consequently no reliable statistical inferences could be drawn from the sample with regards to trends in community disclosure in the UK as anything could have happened between the years that could invalidate the results. Nevertheless the

[14] BITC was one of the community organisations created to promote corporate involvement in community development.

results from the OLS regression analysis appeared to be fortuitously consistent with the CSRD literatures. However, since the pilot (1) sample was small and could not be statistically relied upon, its use in this thesis was limited to refining the data collection instruments and for proper specification of decision rules.

For the pilot study (2), a panel dataset was collected from the annual reports of 27 companies over a period of ten years, resulting in a total random sample of 270 observations. The pilot (2) which builds on experiences from the pilot study (1) was necessitated to further refine the decision rules and methodology to be adopted for the main study. The pilot (2) was also used to explore and refine the unit of measurement as well as the variables intended for use in the main study. The pilot study (2) provided an insight into the importance of word count as a unit of measurement as against sentence count used in the pilot study (1). Problems encountered with sentence count such as inconsistency in classification was overcome with word count (see sub-section 5.4.2.3 below for further discussion on this). The pilot study (2) also reinforced the need for a qualitative comparison of the quality and quantity of the disclosures in order to establish the reality of the activities being disclosed. The pilot study (2) later culminated into a research paper – Yekini & Jallow (2012) – Appendix 12.

The main samples

A sample of 100 companies drawn from the FTSE[15] 350 index was intended for use in this study. The FTSE 350 index is made up of the FTSE 100 and 250 indices. The FTSE 100 consists of the top 100 companies listed on the London Stock Exchange (LSE), while FTSE 250 consists of the 101st to 350th companies listed on the LSE. The companies are ranked[16] as the largest 350 UK companies with their primary listing on the LSE based on their market capitalisation (FTSE, 2009). In the literature, however, sample selection for CSRD studies had been from a wide range of populations, some examples are: for UK studies (the top 100 companies from the Times 1000 – Gray *et al.*, 1995b; FTSE 100 companies – Campbell *et al.*, 2006); for US studies (Ernst &

[15] The FTSE indices are produced quarterly by the FTSE Group. The group is owned jointly by the Financial Times and the London Stock Exchange. The indices are intended to provide investors, financial advisers, fund managers etc. with information to enable them identify and track market trends and make investment decisions (FTSE publication, June 2009).

[16] Only company with full listing on the LSE are eligible to be included in the ranking

Ernst, 1978 survey – Cowen *et al.*, 1987; Fortune 500 companies – Abbott and Morsen, 1979; Patten, 1991); for New Zealand studies (the largest companies on the New Zealand stock exchange – Hackston and Milne, 1996); for Australian studies (companies listed on the Australian Associated Stock Exchange – Trotman and Bradley, 1981). However, the literature is not clear on the right kind of population from which to draw a sample for CSRD study and indeed Gray *et al.* (1995b) pointed out that accounting literature is silent on these issues. Nevertheless, a regular pattern can be observed from the studies mentioned above. The samples for these studies consisted of the top companies from either the list of companies on the various countries' stock exchanges, or top companies from the rankings of recognised magazines or newspapers. Therefore, since no theoretical support existed for the best sampling technique to be adopted for CSRD studies, the researcher decided to follow the trend in the literature and drew the samples for this thesis from the FTSE 350 index being the most easily accessible under this circumstance.

Further justification for the FTSE 350 includes: to ensure that a representative sample of large companies in the UK is achieved, to achieve a good spread among the industries and to ensure that the annual reports for the whole period under consideration are available for sampled companies. The FTSE 350 is also suitable for this study because previous studies (Gray *et al.*, 1995a&b; Campbell *et al.*, 2006) have shown that samples of the largest companies are more likely to capture more data than smaller companies. Furthermore, to investigate whether the increased awareness of CSR and subsequent demand for its disclosure have any effect on CCID, the largest companies will be most suitable as evidence exists that larger companies disclose more CSR themes/topics compared to smaller companies (Adams *et al.*, 1998). Therefore, the sampling frame for this study is the list of the FTSE 350 companies as at 14th October 2009 being the day the data collection commenced.

However, in order to ensure representativeness, the companies on this list were divided into ten strata[17] using their industrial classification as a basis. The industry classification scheme adopted was that of the Industrial Classification Benchmark (ICB) structure and

[17] This method of sampling is referred to as Stratified Sampling technique; it involves dividing the population into homogeneous subgroups and then taking a simple random sample in each subgroup (Trochim, 2006).

code index[18]. The ICB classified companies into sectors which were then grouped into super sectors and then into industries (ICB Release 4.0, June 2009). The ten industries classification according to the ICB, include: Oil & Gas, Basic Materials, Industrials, Consumer goods, Health care, Consumer services, Telecommunications, Utilities, Financials and Technology. Each of the ten industrial sectors was represented in our sample, which was later bifurcated into High public profile and Low public profile[19] industries patterned after Campbell *et al.* (2006). High profile industries are those with high public sensitivity because they interact more with consumers in their local communities (Campbell *et al.*, 2006) and they consist of Consumer goods, Health care, Consumer services, Telecommunications, Financials and Utilities. The low profile industries are Basic Materials, Industrials, Oil & Gas and Technology. These industries have less direct interaction with consumers and are therefore regarded as having lower public profile (Hackston and Milne, 1996; Campbell *et al.*, 2006).

Ten companies were randomly selected from industries that have more than ten companies, while all companies were selected from industries with ten or less companies. For example all companies under the Health care, Telecommunications and Utilities industrial classifications were selected for this reason. This gave an initial 95 companies in total. However seven companies were dropped due to the listing date which did not fall within the specification mentioned earlier, and another 15 companies were dropped due to non-availability of annual reports and/or data on the DataStream. Eventually a total of 73 companies' annual reports, covering eleven years from 1999 to 2009 (inclusive), were examined, giving a total of 803 observations. Table 5.1 below presents the industry classification and number of companies selected from each industry, while the list of companies included in the study is presented in Appendix 1.

Table 5.1 however, shows an uneven distribution between the ten industrial classifications, for instance while Consumer Goods have as many as ten companies and Industrials have nine companies, Telecommunications have only five companies

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[18] The Industry Classification Benchmark (ICB) is jointly owned by the FTSE International Ltd and the Dow Jones & Co (DJ). The ICB structure and code index is used in both the FTSE and DJ indices for the classification of companies into sectors and industries. For the purpose of this study, the structure and code was accessed on 7 October 2009 and downloaded from http://www.ftse.com/Indices/Industry_Classification_Benchmark/index.jsp.

[19] See chapter 4, section 4.2.1 for detailed discussions and justification for classification into high and low public profile.

analysed. Also while Consumer Services, Financials and Technology each have eight companies analysed, three other industries – Basic Materials, Health Care and Oil & Gas – have six companies each analysed, while Utilities have seven companies.

Table 5. 1: Industrial Classification

Industrial Classification Benchmark (ICB)	Public Profile	Number of Companies	No. of Annual Reports examined
Basic Materials.	0	6	66
Consumer Goods	1	10	110
Consumer Services	1	8	88
Financials	1	8	88
Health Care	1	6	66
Industrials	0	9	99
Oil and Gas	0	6	66
Technology	0	8	88
Telecommunications	1	5	55
Utilities	1	7	77
Total		**73**	**803**

5.4.2 Data Collection Method

5.4.2.1 Content Analysis

The data collection method adopted in this research is content analysis. Weber (1988) described content analysis as a *data collection method* of codifying the content of a narrative report using selected criteria or decision rules, thereby deriving quantitative scale, which then permits further analysis. As a *data analysis method,* Krippendorff (2004:18) defined content analysis as a research technique that can be used *"for making replicable and valid inferences from texts ... to the contexts of their use"*. Previous studies on social disclosure (for example, Ernst & Ernst, 1978; Ingram & Frazier, 1980; Guthrie and Parker, 1990; Gray *et al.*, 1995b; Hackston & Milne, 1996; Guthrie *et al.*, 2004; Beattie *et al.*, 2004; Campbell *et al.*, 2006; Hooks & van Staden, 2011) have used content analysis both as a method of collecting and analysing data on CSR information. Its wide use by CSRD scholars is evidence of its acceptability among social responsibility researchers as a valid research tool in this area (Hooks & van Staden, 2011). Content analysis has been used in diverse ways to collect narrative data from annual reports; these include: sentence count (Hackston & Milne, 1996; Deegan *et al.*, 2000); word count (Gray *et al.*, 1995b; Adams *et al.*, 1998; Campbell *et al.*, 2006) and constructing quality score index (Walden and Schwartz, 1997; Freedman and Stagliano, 1992, 2008) and so on.

Using content analysis for data collection purposes involves the construction of a classification scheme and defining a set of rules to guide in the coding, measuring and recording of the texts or items to be classified (Milne and Adler, 1999). The advantage of this is that a large volume of data can be coded and analysed by different individuals and the same results would be achieved (reproducibility). To achieve this, however the classification scheme must be reliable, that is, capable of being coded in the same way by different coders (Beattie *et al.*, 2004). Another advantage of using content analysis is that the external validity of the data is ensured as data collection and measurement does not interfere with the phenomenon (Krippendorff, 2004). Additionally content analysis data may be analysed both quantitatively and qualitatively. Quantitative analysis requires the scoring of the units of analysis, thus deriving quantitative scale which lends itself to statistical analysis (Weber, 1988). Qualitative analysis involves descriptive analysis of the contents.

However, the reliability of content analysis in extracting social disclosure information from annual reports has been questioned (Milne & Adler, 1999; Guthrie *et al.*, 2004). Firstly, lack of consistent definition of social disclosure could prevent reproducibility. While some researchers define social disclosure as any mention of the disclosure item in any part of annual reports (Gray *et al.*, 1995b; Hackston & Milne, 1996), others emphasize the section heading of the disclosure item (Walden and Schwartz, 1997). Another disadvantage is that where one coder is involved, as is the case with a PhD thesis, the objectivity of the measurement is in question, while the inferences drawn from such data may be biased (Hackston & Milne, 1996). This is because the personal belief of the researcher may influence the results (Burritt & Welch, 1997). To avoid this therefore, most researchers engage more than one coder in order to allow for inter-subjectivity on the classification of disclosure items (Gray *et al.*, 1995b; Hackston & Milne, 1996; Milne & Adler, 1999; Guthrie *et al.*, 2004).

Nevertheless, Milne & Adler (1999), in an extensive examination of the reliability of content analysis, argued that the output from content analysis data can be relied upon especially when coding instruments are used, with well specified decision rules and coding categories of information. They argued that, even in the absence of multiple coders, a well specified coding instrument will produce very few discrepancies and is thus reliable. Therefore, since the use of multiple coders is not practicable with a PhD thesis, the researcher employed the use of well specified coding/interrogation instruments (this is discussed further in sub-section 5.4.2.6).

Moreover, content analysis is particularly useful in this research as it allows for the construction of analytical categories of the content of CCID in each annual report, and thus allows quantitative as well as semiotic analyses. Effort was therefore made to define categories as precisely as possible with well-defined decision rules and criteria based on the theoretical underpinnings – Legitimacy, Stakeholder, Agency, Signalling and Semiotic theories discussed in Chapter 3. This is to ensure that the categories are mutually exclusive and that classifications into categories are not discretionary (Ingram and Frazier, 1980; Bryman & Bell, 2007) and thus allow for reproducibility.

The steps taken in the development of the coding scheme followed those suggested by Weber (1988):

1. Define the unit of measurement (word count is used in this thesis as the unit of measurement, the justification for this is discussed in sub-section 5.4.2.3);
2. Define the categories (As discussed in Chapter 2 of this thesis, CCI category is patterned after Ernst and Ernst (1978) and Gray *et al.* (1995b). See Table 5. 2 for details of CCI category adopted in this thesis);
3. Test coding of a sample of text (Pilot 1 sample discussed earlier);
4. Assess reliability (Pilot 1 sample);
5. Revise coding rules; (Pilot 1 sample);
6. Repeat steps 3–5 until reliability is satisfactory; (Pilot 2 sample);
7. Code all text; and
8. Assess achieved reliability – pilot 2 samples (Weber, 1988: 23–24).

5.4.2.2 Decision Rules and Classification Scheme

Following from the discussion above, a set of decision rules (Tables 5.3 and 5.4) and classification schemes (Table 5.5) were developed. The decision rules and classification schemes were adapted from: Ernst and Ernst (1978); Ingram and Frazier (1980); Gray *et al.* (1995a&b); Deegan and Gordon (1996) and Hackston & Milne (1996).

Table 5. 2 Categories of CCID in Annual Report

No.	Description of Community Disclosure Theme
1.	**Community activities:** • Donations of cash, products or employee services to support established community activities, events and organisations • Donation of premises or office equipment for community programmes • Developing and patronising local suppliers of goods and services • Provision of local employment and infrastructures • Provision of summer or part-time employment for students • Provision of livelihood and income generation schemes for local residence e.g. micro-credit.
2.	**Health and related activities:** • Sponsoring public health projects • Aiding medical research • Provision of health facilities • Environmental sanitation.
3.	**Education and the arts:** • Sponsoring educational conferences, seminars or art exhibits • Offering University scholarship for local residents • Provision of education facilities and skills training • Apprenticeship program to provide on the job training for local residents • Provision of opportunity for students placements.
4.	**Other community activities:** • Other special community related activities, e.g. opening the company's facilities to the public • Supporting and sponsoring sporting activities • Supporting national pride/government sponsored campaigns.

Adapted from: (Ingram and Frazier, 1980; Gray, *et al*., 1995b; Deegan and Gordon, 1996; Hackston and Milne, 1996)

The rules and classification schemes were pilot tested several times following the suggestions of Milne & Adler (1999) and Guthrie *et al.* (2004). They suggested that to increase reliability, the decision category and decision rules must be well specified and pilot tested to reach an acceptable level (see Appendices 2 & 3 for the coding scheme used in the pilot studies and Appendix 4 for the decision rules). Accordingly, the final coding categories (see Table 5.2) resulted from repeated application of our decision rules and criteria to several annual reports in the pilot studies so as to ensure that results could be replicated by other researchers.

Table 5. 3: Decision Rules for Volume of CCID in Annual Reports

No.	Description
1.	Word count of any statement where any item within the categories of community disclosure in Table 5.2 above is mentioned.
2.	**Other inclusions** • Any statement where involvement in community and/or social activity is mentioned. • All community sponsorship activities as stated in Table 5.2 above no matter how much it is advertising. • Any sponsorship of schools, health, arts and sporting activities • Any employee involvement with above if company support is apparent • Business-in-the-community award and secondment of staff
3.	**Exclusions** • All disclosures must be specifically stated, they cannot be implied • Donations to charities mentioned under director's report are not included since this is a mandatory disclosure • Any statement indicating that the company's community activity is in compliance with governmental regulatory standards is not considered
4.	**Types of disclosure** • A Statement is classified as "Financial" if it expresses the companies community activities in monetary terms (cost of involvement in the community) with or without tables • Disclosure is physical where actual picture of the community activity is displayed to support narrative or financial disclosure

Adapted from: (Ingram and Frazier, 1980; Gray, *et al.*, 1995b; Deegan and Gordon, 1996; Hackston and Milne, 1996)

However, in the course of the pilot studies, decision rules for any coding category found to be deficient were refined and improved upon to include any further information. For example the constituents of each category of CCID were not specified in previous studies and were hence difficult to use (see for instance Ernst and Ernst, 1978; Ingram and Frazier, 1980; Deegan and Gordon, 1996). The researcher therefore identified and specified what to be classified under each category (see Table 5.2). After several refinements and improvements, the coding schemes were run through the annual reports several times until the categories appeared workable. Accordingly the categories of CCID that formed the basis of the content analysis of sampled annual reports, the decision rules employed in the content analysis as well as the final dimensions of the classification scheme used for the main study are shown in Tables 5.2 to 5.5.

Table 5. 4: Decision Rule for News[20]

No.	Description of criteria for News items
1.	**News on Community Involvement** National and Regional Newspapers – word counts of news articles per industry with mention of any of the following: a. Corporate community involvement b. Community development c. Community investment d. Investment in health e. Sponsorship of art and education f. Sponsorship of sporting activities g. Scholarship h. Donation of company products i. Corporate humanitarian aids **News on Other CSR Issues** National and Regional Newspapers – word counts of news articles per industry with mention of any 3 of the following: i. Social responsibility ii. Corporate responsibility iii. Sustainable development iv. Sustainability v. Socially responsible vi. Pollution and environment

See Appendix 5 – for list of newspapers used in this study.

[20] Newspaper articles were obtained from the LexisNexis Library.

Table 5. 5: Classification Scheme for Content Analysis[21]

No.	Description of Information for content analysis
1.	**Company name.**
2.	**Year of report.**
3.	**Volume per theme of CCID – word count;**
a)	Community activities
b)	Health and related activities
c)	Education and the arts
d)	Other community activities
e)	Total community activities
4.	**Volume of other social disclosures – word counts**
5.	**Quality of community disclosure**
a)	Specific mention of any item of community activity
b)	Factual information on community involvement disclosed;
	i) Financial information given
	ii) Physical information in form of pictures
c)	Important
	i) Located under chairman's statements
	ii) Located in a separate section of annual reports
d)	Relevant
	- Located in the review of the year section
	- Located in directors report
6.	[22]**Company Characteristics:**
a)	Size, e.g. Turnover
b)	Profitability, e.g. ROA, ROE, NIM
c)	Market to book value (MTB)
c)	Leverage
d)	Listing age
e)	Research and development expenditure
f)	Industry groupings;
	i) High public profile industries
	ii) Low public profile industries
7.	**News on community issues**
8.	**News on other CSR issues**
9.	**Corporate governance information:**
a)	Board activities (measured by board meetings, size and composition)
b)	Audit committee activities (measured by audit committee meetings and size)
c)	Other standing committees
d)	Type of external auditors

Adapted from: (Ingram and Frazier, 1980; Gray, *et al*., 1995b; Deegan and Gordon, 1996; Hackston and Milne, 1996)

[21] Table 5.5 is to illustrate the classification scheme used for content analysis in this thesis. Further definitions and justification of variables can be found in the relevant chapters where such variables were used.
[22] Most data for this field was obtained from the Thomson Reuter DataStream.

5.4.2.3 Unit of Measurement – Volume of Disclosure

Volume of disclosure was measured using word count as the unit of measurement. Word count as the unit of measurement was adopted in this thesis to allow the researcher to compare the extent of disclosure and the quality of items disclosed; additionally word count would allow for semiotic analysis of CCID. Although this method of measurement has been used a lot in literature (Gray, *et al.*, 1995b; Deegan and Gordon, 1996; Deegan and Rankin, 1996; Adams *et al.*, 1998; Campbell, 2003 & 2004; Campbell *et al.*, 2006), there have been critical debates over the years on the best unit of measurement to be used in content analysis. The argument revolves around the best way of coding and counting narrative disclosures that is, identifying the disclosure type and measuring or counting such disclosures (Milne and Adler, 1999). Other measurement methods identified in the literature included: sentence count (Hackston and Milne, 1996; Milne and Adler, 1999; Deegan et al., 2000) and page proportion (Guthrie and Parker, 1990; Gray *et al*., 1995b; Campbell, 2000).

Nevertheless one argument in favour of word count put forward by Krippendorff (2004) is that; as word is the smallest unit of measurement and analysis it is capable of providing the maximum robustness in the measurement of the volume of disclosure. Gray *et al.* (1995b) also emphasized the advantage of word count in measuring written communications; according to them, word counts allows for a more exclusive analysis than sentences or page measurements. Deegan and Gordon (1996) argued that, using words as the unit of measurement provided maximum robustness to error in calculating the amount of disclosure.

On the other hand arguments against proportion of pages as the unit of measurement included that of standardizing the pages of annual reports as differences do exist in annual reports of companies in the area of print sizes, column sizes and page sizes (Hackston and Milne 1996), while a simple count of words will overcome these problems. Similarly the researcher adopted sentence count for the pilot study (1) and a major problem was deciding what sentences to include in the analysis in order to allow for reproducibility. This was because the analysis was done by a single researcher and so it was difficult to ascertain how some very complex sentence structures would have been interpreted if another researcher was to analyse them.

Therefore in order to avoid misleading results and also to ensure reproducibility, the researcher decided to use word count as the unit of measurement in the main study, having tried it out with the pilot study 2 and having found it to be very effective in capturing the volume of disclosures. Moreover since the objective of the study is to measure basically the extent and quality of community disclosure *vis-à-vis* other variables, word count would be an appropriate measure as argued by Zéghal and Ahmed (1990); Wilmshurst and Frost (2000); Campbell *et al.* (2006). The construction of the interrogation instrument used for this purpose is discussed in sub-section 5.4.2.6.

5.4.2.4 Unit of Measurement – Quality of Disclosure

Although literature supporting quality measurement of disclosure is scarce, Freedman and Stagliano, (1992, 1995 & 2008) maintained that measuring the quality of disclosure is more important than the quantity as this conveys the meaning and importance of the message. Furthermore Walden and Schwartz, (1997:151) argued that quality measures provides a systematic and numerical basis for comparing objectively the content of social disclosures. Also quality measure is a valuable tool in a signalling theory framework (Tom, 2002; Hasseldine *et al.*, 2005) to assist in determining the quality of community disclosure as a true signal of CCD. Nevertheless the problem is defining *quality*.

Towards a definition of Community Disclosure Quality

Disclosure Quality has been defined in different ways by different scholars. For example: while Walden and Schwartz, (1997) based their definition of disclosure quality on the location of disclosure, evidence of items disclosed – that is monetary or non-monetary – and the timing of disclosure; Deegan and Gordon (1996) and Deegan and Rankin (1996) defined quality by the nature of the news in the disclosure. On the other hand Guthrie and Parker (1990); Gray *et al.* (1995b); Hackston and Milne (1996) and Guthrie *et al.* (2003 & 2004) all have in common a definition of quality that includes themes of disclosure, amount (volume) of disclosure and evidence of disclosure. Beattie *et al.* (2004:227) describes disclosure quality as a complex and "*multi-faceted concept"*, while also defining it in terms of its attributes: historical/forward-looking; financial/non-financial and quantitative/non-quantitative. However in addition to this common definition, these scholars differ in definition by the addition of either "news" or "location". While Gray *et al.* (1995b) and Hackston and Milne (1996) examined the type of "news" in the disclosure – whether bad or good news – in addition, Guthrie and Parker (1990) and Guthrie *et al.* (2004) examined "location" of disclosure in addition to the common definition.

Guthrie *et al.* (2004) opined that the best definition is that which takes into consideration not only the theme and evidence of disclosure but also the location of disclosure arguing that this approach will not only prevent information loss and provide the description of the disclosure practices of organisations, but will also give an insight into the importance attached to the issues being disclosed. This approach is considered more relevant to this study as it is the most likely to yield a meaningful result in the investigation of the importance and reality of CCID *vis-à-vis* the growing awareness and demand for CSR by the society. Additionally, as community disclosure relates to corporate involvement in community development, the issue of negative or positive news does not come in, as the company only reports on the activity undertaken by them within the community. Therefore the quality of community disclosure is defined in this thesis in terms of specific mention of the community project undertaken; the evidence provided – that is, financial or photographic – and the location of the disclosure in annual reports.

Measuring Disclosure Quality

Following from the definition above, measuring the quality of community involvement information disclosed in annual reports therefore, depends on a number of factors. Firstly, the form of disclosure – whether financial, physical, or just narrative (Ingram & Frazier, 1980; Gray *et al.*, 1995b; Hackston and Milne, 1996; Adams *et al.*, 1998; Toms, 2002); secondly, the relevance and importance attached to it, measured by the location of the information in the annual report – whether it is located under the chairman's statement, directors report, the review of the year section or a separate section in the annual report (Guthrie and Parker, 1990; Gray *et al.*, 1995b; Guthrie *et al.*, 2004). Finally, detailed description of the specific community activities undertaken by the companies within community of operation.

However contrary to Beattie *et al.*'s (2004) arguments that "*Companies that say relatively more can be expected to provide disclosure of higher quality*" (Beattie *et al.*, 2004:230), this thesis argues that specificity and substance rather than amount of disclosure should determine quality. Consequently in this thesis, amount is not considered as one of the measure of quality. Since community disclosure requires actual involvement in community development, this thesis argues that, the quality of such disclosure should include specific description of community projects undertaken with evidence provided – financial or photographic wherever possible. In addition, for the purpose of one of the research objectives of this thesis – establishing the reality of CCI as a true measure of community development – describing in detail the specific activities undertaken by the company will distinguish such CCI reports from that of a false image builder according to the tenets of signalling theory (see Chapter 3, sub-section 3.2.4 for detailed discussion on signalling theory).

Measuring disclosure quality therefore will require a scoring system that allows us to give a higher score to inimitable verifiable disclosures and a lower score to general statements that have little or no substance in them (Hasseldine *et al.*, 2005). In other words, the higher the quality score a company obtains the higher the quality of CCID. Although the CSRD literature provides no guidance as to the scoring or allocation of points to classifications of disclosure such as this, Marston and Shrives (1991), in their comprehensive review of studies that have used the scoring system in accounting disclosure research, concluded that most scoring systems involve *"subjective judgement on the part of the researchers"* and could only measure extent rather than quality of disclosures (Marston and Shrives, 1991:207). Nevertheless to measure quality, Freedman and Stagliano (2008) argued that a differential weighting scheme can be justified by the fact that some classifications of disclosure contain more information than others. For instance giving specific details of what the company has achieved in the area of education or health care is much more informative than mere general statements about the company's involvement in the community; therefore if points are awarded for each mention of specific categories of CCI, then no points should be awarded for general statements.

Consequently in this thesis, the quality of CCID was measured using the total quality score (TQS) obtained on a four-element index (see Table 5.6 below). The index was constructed using content analysis and patterned after Freedman and Stagliano, (1992:115 & 2008:480-481) and Walden and Schwartz, (1997:151), while the four measures of quality are adopted from the definition of quality measures as discussed above (see also Guthrie *et al.*, 2004). Although the definition of quality as used in this thesis is grounded in literature (Guthrie and Parker, 1990; Freedman and Stagliano, 1992 & 1995; Gray *et al.*, 1995a&b; Hackston and Milne 1996; Walden and Schwartz, 1997; Guthrie *et al.*, 2003 & 2004), the use of the terms: *specific*, *factual*, *important* and *relevant* is unique to this study and are therefore explained in detail below.

Table 5. 6: Elements of CCI Quality in Annual Reports

Index	Description
Specific	Whether there is specific mention of the community activity undertaken.
Factual	Whether information provided is of a financial or physical nature.
Important	The importance attached to it, measured by its location in annual report.
Relevant	Whether it is considered a mainstream activity or within the core competence of the corporation, also measured by location

Specific disclosure refers to the detailed description of any category of community activity. As discussed earlier, community activities were categorised into four – community projects; health and related activities; education and the arts and other community activities – patterned after Ernst and Ernst (1978) and Gray *et al.* (1995a&b). See Table 5.2 for details of what made up each of the categories. The contention of this thesis is that, following the discussion on signalling theory discussed in Chapter 3, sub-section 3.2.4, CCID should only be accepted as a quality signal of actual community involvement if it satisfies the condition of being inimitable to produce by a false image builder. To this end the information disclosed in the annual reports on community involvement should give specific details of quantifiable and verifiable difficult to mimic projects (Toms, 2002) for it to possess the necessary quality required to be a true signal of actual community development.

Factual disclosures, as the term implies are those based on the facts given about the disclosure. They refer to evidence provided in the annual reports in the form of financial or physical information. The "factual" element is therefore sub-divided into two elements – Financial and Physical. A statement is classified as *Financial* if it expresses the company's community activities in monetary terms with or without tables;

otherwise it is classified as *Narrative* if it expresses the companies' community activities in qualitative terms (Guthrie and Parker, 1990; Gray *et al.,* 1995b; Hackston and Milne, 1996; Walden and Schwartz, 1997; Guthrie *et al.,* 2003 & 2004). Disclosure is *Physical* where the actual picture of the community activity is displayed to support the narrative or financial disclosure. The inclusion of pictures in a quality measure is considered vital for the purpose of this study. Wilmshurst and Frost (2000) argued that a picture is worth more than a thousand words and will convey more messages than words. They maintained that pictures might be used by management to convey the corporation's approach to environmental issues and therefore regarded its exclusion from their study as a limitation. However as there are complications as to the weight or value to be attached to a picture in measuring the volume of disclosure (Guthrie *et al.*, 2004), its use in this study is restricted to the measure of the quality of disclosure.

The other two elements of quality – ***Important*** and ***Relevant*** are based on the location of disclosure within the annual report (Guthrie and Parker, 1990; Walden and Schwartz, 1997; Guthrie *et al.,* 2003 & 2004). Information located in the chairman's statements or a separate section of the annual report is classified as "Important" indicating that the corporation attaches high importance to such issues (Gray *et al.,* 1995b:83; Walden and Schwartz, 1997:151). Kirkman and Hope (1992) argued that information disclosed in a separate section of the annual report or produced as a separate booklet demonstrates the importance and weight attached to that information. So also information located in the chairman's statement indicated the desire of management to have it widely read by all (Kirkman and Hope, 1992; Gray *et al.,* 1995b). The argument here is that the desire to have particular information widely read or publicised shows an intention to use such information as a signal of some sort. Although there has not been any conclusive evidence as to the most preferred location for CSRD in literature (Gray *et al.,* 1995b), Kirkman and Hope (1992) argued that items disclosed under the chairman's statement are more likely to be read than any other narrative section of the annual reports.

Furthermore, information located in the director's report and/or review of the year section is classified as "Relevant" indicating that such issues are integrated into the mainstream activity or within the core competence of the corporation and thus relevant to the business of the corporation (Gray *et al.,* 1995b:83). Kirkman and Hope (1992) argued that issues that are given the same priority as those of the mainstream of the organisation and are as such fully integrated into the mainstream activities will normally be disclosed in the Directors report and/or the Review of the year sections of the report. The argument here is that such activity will normally be unique to that corporation and therefore qualify as a signal. Signalling theory predicts that an activity within the core competence of an organisation will usually be inimitable. The disclosure of such activity therefore qualifies as a signal.

Finally whenever only a general statements of policy or mere wishes and the intention of the organisation to get involved with the community are disclosed, the researcher argues that such disclosures are a mere indication of CSR observance.

5.4.2.5 Techniques of Data Capture

a) Volume of disclosure – Word count

Words were counted using Microsoft Software – Word documents. The volume of disclosure was taken as total disclosure on CSR and are copied and pasted into a Word document. The portion dedicated to community activities was then copied and pasted into a separate Word document in order to establish the number of words used. However before obtaining the word count, the information was sorted out according to the category of community involvement; health, education and the arts, participation in community activities and other community engagements. The word count per category of community involvement was then taken and recorded in the instrument in Table 5.7.

Disclosures are considered community involvement either when a theme is so indicated or where community and/or social involvement are mentioned within a statement. As outlined in Table 5.2 above, any statement reporting any form of community sponsorship activities, or any sponsorship of schools, health, arts and sporting activities were captured. Also all employee involvement with the community, if the company's support is apparent, was captured, as well as Business-in-the-community award/secondment of staff. Only disclosures that are specifically stated were captured as disclosures cannot be implied. However any statements indicating that the company's community activity is in compliance with governmental regulatory standards was not considered. Similarly the disclosure of political or charitable donations in the directors' report is not included since this is a mandatory disclosure.

b) Quality of disclosure

To collect data on the quality of community disclosure, the instrument in Table 5.8 was used to record the information on community involvement activities based on the four-element index described in sub-section 5.4.2.4 above. Freedman and Stagliano (2008) constructed a similar disclosure index by first determining the categories of emissions and environmental data disclosure for classification purposes and then determined the points to be given each category and classification. Similarly since this study is concerned with the disclosure of CCI, the researcher adopted the categorisation of CCID by Ernst and Ernst (1978) and Gray *et al.* (1995b) as shown in Table 5.2 above. Then for the purpose of obtaining the Total Quality Score (TQS), the researcher identified specific mention of the community activity undertaken and awarded one point for each category described. Also the presence of each sub-element of the *Factual*, *Importance* and *Relevant* measures were awarded one point each. One point each was allocated for each criterion because they were all treated as equally important given that an item considered important by one shareholder may be unimportant to the other (Campbell *et al*., 2001; Cook, 1989).

In other words community disclosure in any annual report with both financial and physical information received two points for the Factual-element or one point if only one sub-element of Factual is given, while no points were given for the Factual-element if the disclosure was only narrative. Similarly if community information was mentioned in the chairman's statement and at the same time disclosed in a separate section of the annual report two points were awarded for the Importance-element while one point was awarded if mentioned in one and not mentioned in the other. This also applied to the Relevance-element. Therefore each community disclosure in a particular annual report can receive a minimum of zero points and a maximum of ten points. The scores were then summed up to get the variable TQS.

The data were entered into the Microsoft software – the Excel spread sheet to allow for ease of processing. The raw data were filtered and analysed according to industry, year, disclosure theme and so on depending on the field to be analysed.

5.4.2.6 Interrogation Instruments

As established in sub-section 5.4.2.1, the stability, reliability and reproducibility of content analysis can be achieved with the existence of an interrogation instrument in addition to a well-specified decision rule (Gray *et al.*, 1995b; Hackston & Milne, 1996; Milne and Adler, 1999; Krippendorff, 2004). Therefore this research adopted the use of interrogation instrument in addition to the specified decision rules in Tables 5.2 and 5.3 and classification scheme in Table 5.5 above. The interrogation instruments were similar to those used in Ernst & Ernst (1978); Ingram and Frazier (1980); Roberts (1992); Gray, *et al.*, (1995b); Deegan and Gordon (1996); Hackston and Milne (1996) Walden and Schwartz (1997). However Gray *et al.* (1995b) and Hackston & Milne (1996) were particularly useful in designing the instrument for this thesis.

However while the instruments used in previous studies were used to capture the range of themes under CSRD generally, the instrument in this thesis was tailored towards capturing specifically CCID; hence other CSR themes were excluded. Also the instruments used in this thesis differ from those of prior studies in that the researcher designed the instrument in such a way as to capture data for the eleven-year period under investigation. The interrogation instruments are shown in Tables 5.7 and 5.8 below. The instrument in Table 5.7 was used to capture the volume (in word count) of community involvement in the four different categories described in Table 5.2 above; while the quality of disclosure was captured using Table 5.8.

Table 5. 7: Community Involvement Disclosure Instrument (Volume by category)

Name of Company: ....

Theme/Category of Disclosures	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Community activities											
Health and related activities											
Education and the arts											
Other community activity disclosures											
Total											

(Adapted from Gray *et al.*, 1995b; Hackston and Milne, 1996)

Table 5. 8: Community Involvement Disclosure Instrument (Quality measure)

	Disclosure Classification	Max Score
1	**Specific** – Detailed description of any category of CCI (1 point for each category mentioned)	4
2	**Factual** – Provision of photographic and/or quantitative information about CCI (1points for each).	2
3	**Important** – Disclosed under chairman's statement and/or separate section of annual reports (1points for each)	2
4	**Relevant** – Disclosed in the director's report and/or review of the year section (1points for each)	2
	Total Quality Score (TQS)	10

(Adapted from Walden and Schwartz, 1997 and Freedman and Stagliano, 1992 & 2008)

5.4.3 Data Analysis Method

5.4.3.1 Quantitative analysis

Following strictly the final criteria and the decision rules specified in this chapter, the raw data were collected and entered into an Excel spread sheet for clean-up and further analysis. The spread sheet contained 36 fields, with the headings and sub-headings in Table 5.5. The Excel spread sheet was used to allow for ease of processing. The raw data were filtered and analysed according to year, disclosure theme and so on depending on the field to be analysed. All data collected as discussed above and other data (financial) from the Thompson Reuter DataStream were of a panel nature. Firstly it is cross-sectional, consisting of data from 73 UK FTSE 350 companies cutting across all ten industry classifications of the ICB. Secondly it is longitudinal, that is the same variables were observed repeatedly for all 73 companies over a period of eleven years, thus giving a total of 803 observations.

However, the data for some of the variables were normalised using natural logarithm, while extreme cases of outliers were excluded. Other statistical tests like the Jarque-Bera (Skewness/Kurtosis) test and the Shapiro-Wilk *W* test were also performed to check and ensure that the assumption of normality was not violated before using the data for the investigation. The processed data are to be used to test the hypotheses developed in Chapter 4 using the panel study regression models. After regression further post estimation and robustness checks and various sensitivity analyses would be performed in order to strengthen the explanatory power of the results. The data were filtered and analysed according to the classification scheme specified in Table 5.5 above, depending on the hypothesis to be tested and the research question to be answered.

The researcher prefers panel study regression models over the commonly used ordinary least square (OLS) regression because the panel study models are able to capture the panel nature of the dataset and thus control for unobserved heterogeneity bias as discussed earlier in sub-section 5.4.1.2 of this chapter and sub-section 2.4.2 of Chapter 2. Another advantage of the panel dataset and panel study models is that it's cross-sectional and time series elements are well suited to the analytical problem that characterised the common non-randomised[23] data that are found in social research (Baum, 2006). Additionally unobserved endogenous variables (e.g. management leadership style) that may emanate from the very specific culture of the firm and might not have been observed in the course of data collection (Singer and Willett, 2003) can be accounted for using a panel study. Controlling for such variables would ensure the validity of our results (Nelling & Webb, 2009; Garcia-Castro *et al.*, 2010). Furthermore, given that the fundamental aim of quantitative research is to be able to show causal relationship, the composition of panel data together with the availability of special models and methods of analysing such data offers panel data the advantage over other techniques (Dougherty, 2007; Wooldridge, 2009).

Panel study approach was first introduced with the work of Lazarsfeld *et al.* (1944), cited in Lazarsfeld (1948:405); the work was based on panel interviews in Erie County, Ohio during the 1940 presidential campaign. In the study Lazarsfeld used the panel study approach to observe how the propaganda of the two parties affected the way people made up their minds. He therefore studied the same set of people over a six-month period. Lazarsfeld noted that although the panel approach appears promising for a fuller understanding of human behaviour, it is a rather slow research technique and very expensive. However as social researchers began to identify the problem of unobserved heterogeneity bias and the problem of endogeneity the use of panel study by

[23] That is most social research data do not follow proper random sampling from population of interest.

social researchers in investigating social behaviour has fast gained ground thereby displacing cross-sectional studies (Halaby, 2004; Nelling & Webb, 2009; Garcia-Castro *et al.*, 2010). Panel study approach has been used in a broad range of subjects in the literature, ranging from political violence (Villareal, 2002) to educational and family studies (Morrison & Ritualo, 2000; Budig & England, 2001) and in such investigation that is aimed at changes across a large scale of social activities such as Huber & Stephens (2000); Moller *et al*., (2003).

5.4.3.2 Qualitative analysis – Semiotics

Semiotics[24] is, simply put, the study of signs and is based on semiotics theory (see Chapter 3, sub-section 3.2.5 for detailed discussion on semiotic theory). Nevertheless, as an emerging research technique, semiotic has developed into different strands depending on the sort of sign system being studied (Chandler, 2007), while different school of thoughts have also emerged (Propp, 1958; Jakobson, 1960; Greimas, 1966/1983; Lévi-Strauss, 1972; Barthes, 1973). However these schools of thoughts are broadly grouped into the paradigmatic and the syntagmatic techniques. Consequently semioticians and those adopting semiotics as technique of analysis have often analysed text according to the structural relationship inherent in the text using either syntagmatic or paradigmatic approaches.

A sign enjoys syntagmatic relations where signification occurs as a result of the sequence of events that made up the narrative or story, while in paradigmatic relations signification occurs as a result of the association of the sign with other signs within the narrative. Therefore the Saussure model[25] may be said to be paradigmatic in nature while the Peirce model[26] is syntagmatic in nature. In other words, while the Saussure model emphasises the natural language (that is, words) as the sign system, the Peirce model emphasises the sequence of events in the narrative or groups of narratives as the sign system (Fiol, 1989; Hawkes, 2004).

[24] Semiotics is associated with the structuralist philosophical stand point. Structuralism is a 20th century philosophical school of thought and although it has its roots in interpretivism, while human beings are the central focus of the interpretivist, the structuralist, decentres humans and rather focuses on the structures of which humans are seen as elements (Bryman, 2008a).
[25] Discussed in Chapter 3, Section 3.2.5.
[26] See discussion in Chapter 3, section 3.2.5.

The paradigmatic method follow the school of thoughts of semioticians such as Lévi-Strauss (1972) and Barthes (1973, 1977) who are more concerned about the latent structure of the text rather than what happened in the text (Berger, 2005). The syntagmatic method of analysis, on the other hand, follow the school of thoughts of semioticians such as Propp (1958) and Greimas (1966/1983) who believes that the true meaning of a claim in a narrative can only be uncovered by identifying the pattern in which the components constituting the story are combined or structured. However a review of management and social research literature revealed that management and social researchers, most often, employed either the Greimas semiotics (Floch, 1988; Fiol, 1989; Sulkunen & Torronen, 1997; Joutsenvirta & Usitalo, 2010) or the Barthes semiotics (Bell *et al.*, 2002; Davison, 2007 & 2011).

Nevertheless the interrelationship between the author, the reader and the message itself forms the bases of all semiotic analysis. However Barthesian semioticians are more interested in the "*code by which narrator and reader are signified throughout the narrative itself*" (Barthes, 1977:110) rather than the narrator's actions or motives or the effect the actions would have on the reader. Greimasian semioticians on the other hand defined signification as when the reader is able to uncover the truth inherent in the narrative by analysing the actions of the narrator using logical, temporal and semantic criteria (Greimas, 1966/1983). Hence Greimasian semioticians believe that the actions or motives of the subject in the narrative are more important than the words used in describing the actions. Consequently, Greimas semiotic analysis is based on the *doings* of the words in the texts rather than the meaning; hence the words are seen as *actants* helping to describe the actions (Hébert, 2005).

Against this background, since community disclosure consists of stories narrated in the form of folktales about the involvement of the corporation in developments within their community of operations, the Greimas semiotics analysis appears the most suitable. The researcher's objective is to establish the truth in the claims made by organisations (the narrator) about their community involvement activity and the motives behind its disclosure in the annual reports. In other words the researcher is interested in what actually happened in the story, which is consistent with the Greimas semiotics. This however, is contrary to the objectives of the Barthesian semioticians who adopt paradigmatic method of analysis. The Barthesian semioticians emphasise the functions of the words and their relationship to other words used in the narrative to form signification (Barthes, 1977). Greimas semiotics on the other hand, is concerned with identifying the events (actions) within the narratives and how one event relates to another to form signification. In other words texts are analysed as sequence of events forming a narrative thus revealing the truth or what actually happened in the story (Berger, 2005).

Therefore given that the focus of the researcher in the current study is on the motive and actions of the narrator, the Barthesian semiotics is considered unsuitable for this purpose. Barthes (1977) argued that once written, the author of the message as well as the motive of writing has no relevance in the interpretation of the message, which is contrary to the objective of the researcher in this study. On the other hand further justification for Greimas semiotics is inherent in the researcher's objective, which is to unravel the real motives behind the disclosure of community involvement and the truth inherent in the narratives. In addition syntagmatic analysis is particularly suitable for this research, because the disclosures are recorded corporate messages narrated in the form of folktales. They consist of stories that could be re-ordered in order to achieve a recurring structure, thereby reflecting the underlying values of the company and would be best interpreted as a whole (Propp, 1958; Eco, 1994).

However, while semiotics as a method of analysis is well established in France and Italy, the drive for its use has only just begun in the UK and other countries (Berger, 2005). For instance its use in the UK may be traced to the work of the Centre for Contemporary Cultural Studies (CCCS) at the University of Birmingham between 1969 and 1979 (Chandler, 2007). Similarly semiotic principles and techniques have been scantly applied to management and social research generally; nevertheless its use is gradually gaining ground. Although its application in management research has largely concentrated on Marketing and Corporate Communication studies (Corea, 2005; Kameda, 2005; Otubanjo & Melewar, 2007; Burgh-Woodman & Brace-Govan, 2008); its use in management research is fast growing as studies on Organisational Behaviour (Hancock, 2006); Accountability and Management research (Fiol, 1989; Lindblom & Ruland, 1997; Cooper *et al.*, 2001; Bell *et al.*, 2002; Joutsenvirta & Usitalo, 2010); Accounting research studies (Cooper and Puxty, 1994; Macintosh and Baker, 2002; McGoun *et al.*, 2007; Davison, 2007 & 2011) and in fact Corporate Social and

Environmental Reporting studies (Crowther, 2002; Yusoff and Lehman, 2009) have all adopted its use.

5.5 Benefits, Challenges and Limitation of Research Methodology

Although the data collection and analysis techniques used in this thesis tended more towards the quantitative techniques, (approximately 75%:25%), overall, the researcher regard the methodology for this thesis as a mixed methodology. However while the benefits and limitations of both quantitative and qualitative research methods have been discussed above (see sub-section 5.3.2), the benefit and limitation of using both in the same research is discussed in this section.

The most important benefit of mixed methodology to the researcher is that it increases the researcher's confidence in the findings of its result (Bryman, 2008b). In addition, mixed methods have been found to be very useful in addressing the issues confronting management research, such as the issue of context and the need for longitudinal studies (Molina-Azorin, 2011). For instance Molina-Azorin (2011) observed that of all articles published in four management journals between 1997 and 2007, only 11.4% used mixed methods, while 58.3% were quantitative-only studies and 10.9% were qualitative-only studies. However, the study revealed that although only 11.4% articles used mixed methods these articles had higher impact in terms of citation than articles using single methods. According to Molina-Azorin, these articles were able to achieve such higher impact due to their ability to address specific issues confronting management research. He argued that since strategic decision making is industry specific, there is the need to gain understanding of industry context in management research.

Nevertheless, despite all the benefits of mixed method research, the approach is typically associated with high cost, logistical complexity and the interpretation and integration of findings. However a major challenge is that of integrating the research findings. Bryman (2006) found that only 18% of his respondents genuinely integrated their findings. Creswell and Tashakkori (2007) acknowledged that although the two methods must be convincingly developed as two distinct strands of the research, both should be fully integrated in order to provide a richer understanding of the phenomena. Consequently, the use of mixed methodology requires comprehensive methodological and interdisciplinary training which if absent could have an effect on the integration of findings (Bryman and Bell, 2007). The researcher however overcame this problem by attending research training on interdisciplinary methodology.

Furthermore, the main argument against mixed method research includes the fact that each of the two research methods entails different research procedures and has differing epistemological foundations (Bryman & Bell, 2007); hence there is doubt as to the appropriateness of combining the two methods in the same research given that the two methods contained different theoretical underpinnings. Consequently the use of both quantitative and qualitative research methods in the same research project has been a subject of considerable controversy. Although the debate for the appropriateness of mixed methods research in social sciences dates back to the early 1950s, it is yet an uncommon practice in the study of disclosures in annual reports of organisations. However in addition to Crowther (2002) who applied mixed method to the study on corporate reporting, other management research scholars have also used mixed methods in their studies (for details see Molina-Azorin, 2011).

Nonetheless mixed method was adopted in this thesis in order to enhance the empirical findings and hence obtain a comprehensive picture of the reality of CCID in annual reports. Moreover the research question to which it was applied lends itself well to the application of mixed method as it is both evaluative and exploratory in nature. Teddlie and Tashakkori (2003; 2009) suggested that mixed methods should be used where they provide a better prospect of answering the research questions than a single method, especially when one cannot be too sure that the research questions could be fully answered by mono-method. They suggested further that as mixed methods give the opportunity of presenting divergent views of the findings, these would allow for better inferences. Besides mixed method research would give a complete knowledge and insight into the research problem, which might be missed if only a single research method is used (Johnson & Onwuegbuzie, 2004; Molina-Azorin, 2011). The overall benefit of using a mixed method approach particularly in this research is better summarized in the words of Molina-Azorin (2011);

"In fact, in a mixed methods article the quantitative and qualitative components are reported together and, as a consequence, the insights gained from this integration may produce more than the sum of these two parts. Therefore, many researchers have used mixed methods because it seemed intuitively obvious to them that this would enrich their ability to draw conclusions about the problem under study" (Molina-Azorin, 2011:9).

5.6 Chapter Summary

This chapter sets the ground for subsequent chapters as it discussed in detail the research method adopted in this thesis. The justification for a 'form' of realist stance as well as the use of mixed methodology was clearly established. The chapter also elaborated on the research design and sample selection criteria. The use of annual reports as a source of data collection was discussed and justified, while the chapter provided information on the decision rules and interrogation instruments used for content analysis of the annual reports in order to obtain the data for the study. The preference of panel study over cross-sectional only or time series only study was also discussed and justified. The reasons for adopting a panel study for the quantitative aspect and Greimas narrative semiotic analysis for the qualitative aspects were discussed in turn and justified. Finally the challenges and limitations of mixed method research were enumerated, with the researcher concluding that the benefit of adopting a mixed method in this research far outweighs its limitation.

Chapter 6: The Motivation for Community Disclosure

6.1 Chapter Overview

This chapter focuses on exploring the legitimacy, stakeholder and agency theories as a meta-theory in answering the first research question by testing the various hypotheses developed in Section 4.2 of Chapter 4. The review of literature, theories and subsequent hypotheses developed suggested that CCID might be motivated by such variables as industry membership, community expectation, reputation management and firm specific characteristics such as listing age, size and profitability. Also corporate governance (CG) variables such as board activities, audit committee activities, type of external auditors and other standing committees might be some sort of motivation for CCID. The measurement and operationalization of these variables were discussed extensively in Chapter 4, while the operationalization and measurement of CCID was discussed in Chapter 5, sub-section 5.4.2. Therefore this chapter focuses mainly on testing the relationship between these variables and CCID. However the chapter discusses in detail the method used for the analysis and the results of testing each of the hypotheses are discussed in turn. Alternative methods of analysis were identified and reasons for their inappropriateness for this research were also identified and discussed.

6.2 The Dependent Variable

Dependent variables refer to the researcher's variable of interest. That is, the variable the researcher is interested in investigating. For this thesis; the variable of interest is corporate community involvement disclosures in annual reports (CCID). To investigate the motivation for CCID therefore, the researcher measured the volume of the disclosures. The unit of measurement and the techniques of data capture for the volume of CCID were discussed in detail in Chapter 5, sub-section 5.4.2. The panel nature of the data collected for the investigation and the period covered – 1999 to 2009 inclusive – were also discussed in detail in Chapter 5, sub-section 5.4.1.2 and 5.4.1.3. Sources of the data collected for use in the investigation included the Annual Reports, the Thomson Reuters DataStream and the Lexis Library.

6.3 Methods of Analysis

A panel dataset offers the advantage of controlling for any unobserved heterogeneity that could also affect CCID, which could otherwise be omitted if solely cross-section data were used (see Chapter 5, sub-section 5.4.1.2). Panel dataset also lends itself well to rigorous statistical analysis using special estimation models and statistical methods of analysis such as the Random-Effect (RE) and Fixed-Effect (FE) estimation models. These models are specifically developed for panel data analysis and are available in STATA, SAS, E-view and other statistical software which gives panel study method advantage over other methods (Dougherty, 2007; Wooldridge, 2009).

6.3.1 Basic Assumptions for Regression

Regression models are generally used to estimate the relationship between two variables, say Y and X, where variable Y is explained in terms of variable X. In other words regression helps to estimate the effect of variable X on variable Y (Wooldridge, 2009). However the basic assumptions for regression analysis, also known as the Gauss-Markov theorem are that;

1. The error term (ϵ_i) has an expected value of zero.
2. The independent variables are non-random and uncorrelated with the errors ϵ_i.
3. The independent variables are linearly independent. That is, one independent variable should not be too strongly correlated with another. A violation of this assumption may lead to multi-collinearity.
4. The variance of the disturbances ϵ_i is constant for each observation (the homoscedastic assumption).
5. The data are a random sample of the population, which means the disturbances (error term) associated with each observation are uncorrelated with each other (that is, no serial correlation or autocorrelation).
6. The population model is linear.
7. The errors are normally distributed. (Wooldridge, 2009)

The most commonly used regression method is the Ordinary least square (OLS) which is used to find the curve (or line) that best fits a set of data when plotted on a graph in such a way that the sum of the squared disturbances or residuals is as small as possible.

Where assumptions 1 to 5 above are met the Gauss-Markov theorem states that the OLS is the Best Linear Unbiased Estimator (BLUE) (Wooldridge, 2009). Nevertheless since the Gauss-Markov theorem will only hold if the assumptions stated above also holds OLS will not be a suitable method for this analysis. Considering the panel nature (Longitudinal/cross-sectional) of the dataset collected and the nature of the investigation in this thesis, assumptions 2, 4 and 5 above may not hold and hence OLS may no longer be BLUE if used in this investigation. An alternative to OLS is the Generalised Least Square (GLS) method. GLS is suitable when data are collected from different sub-population as is the case with a panel dataset. In GLS regression, weights are assigned to each observation to reflect the uncertainty of the measurement so that GLS will always yield estimators that are BLUE even with the presence of either heteroscedasticity or serial correlation in the errors (Baum, 2006; Greene, 2008; Wooldridge 2009). In its simplest form GLS regression model may be specified as;

$$Y_i = \beta_1 X_i + \epsilon_i \text{ -- (Eq.1)}$$

Where,

Y = Dependent variable

X = Independent or explanatory variable

ϵ = The error term or disturbances

i = The subscript for each organisation and,

β = The parameter to be estimated, where β is the slope of the curve, that is, the coefficients of the independent variables.

6.3.2 Pooled OLS Regression Model

Some authors suggested that one may use the pooled OLS regression for a panel study. In which case the regression simply ignores all the special structure of the panel data and treats it as one big regression of Y on X using all the control variables (Wooldridge, 2009). The pooled OLS regression model can therefore be specified as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \ldots + \beta_n X_{nit} + \epsilon_{it} \text{ -------------------- (Eq.2)}$$

Where,

α = The intercept of the curve

t = The subscript for time period

However, one of the problems with the pooled OLS regression model specified above lies with assumption (2) that says the error term ϵ_{it} is uncorrelated with the observed variables X_{it} This is because a panel dataset with both longitudinal and cross-sectional dataset is quite different from a pooled cross-sectional data in the sense that the error term ϵ_{it} is a composite error term where $\epsilon_{it} = a_i + \mu_{it}$ (Wooldridge, 2009). The issue is that, a_i is a time-constant error term – say for example geographical location or industrial membership, while, μ_{it} is a time-varying idiosyncratic error term – a good example being ethical orientation. In other words while the ethical orientation of management is expected to change over time, the geographical location or industry membership of the company, to a very large extent, is expected to be constant over time. So, even if μ_{it} for each sampled company is uncorrelated with the other explanatory variables across time, the tendency is that a_i may be correlated with these explanatory variables. If this is so, the OLS assumption (2) that ϵ_{it} (which is $a_i + \mu_{it}$ in a panel dataset) is uncorrelated with other explanatory variable would be invalid as the model would have omitted the effect of a time-constant variable (a_i). The resulting OLS estimates will therefore lead to inconsistency and heterogeneity bias; that is, the omission of some hard to observe firm-specific time-constant variables (Wooldridge, 2009:457).

The implication of this is that although we have collected and used a panel dataset the result from the pooled OLS regression will be the same as if we have used a single cross-section data thereby failing to take advantage of the ability of panel data to control for unobserved heterogeneity bias (Halaby, 2004). Nevertheless, since the main reason for collecting panel datasets for this research, in the first instance, was to enable the researcher to account for not only all observable control variables, but also all unobserved heterogeneous variables, the researcher decided against pooled OLS regression. This was to ensure that an unbiased and consistent estimation of the determinants of community disclosure can be obtained in a cross-sectional/longitudinal setting.

6.3.3 Panel Data Models

A panel dataset by its very nature (i.e. longitudinal/cross-sectional) will definitely violate OLS assumptions 4 & 5 (i.e. the homoscedatic and no autocorrelation assumptions). This is because the presence of a_i (a time-constant variable) will lead to serial correlation in the error ϵ_{it} and the variances of the errors are not likely to be constant over time because we are observing the same phenomenon across companies and over time which also will give rise to autocorrelation. They must therefore be accounted for otherwise the estimates will give an incorrect standard error. The two commonly used techniques for accounting for the effect of a_i and for the analysis of panel datasets are the FE estimators and the RE estimators. The FE models assume constant variance across entities; hence firm-specific errors are regarded as part of the intercept since they are usually time-constant (Dougherty, 2007). Therefore, in FE models, a_i is allowed to be correlated to other explanatory variables (Greene, 2008). Thus, Equation 2 above may be re-specified to form a standard FE model as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \ldots + \beta_n X_{nit} + a_i + \mu_{it} \text{ ----------------------------------- (Eq.3)}$$

FE models may be estimated with the least squares dummy variable (LSDV), the First Differencing or the Between-Effect estimation methods. In the LSDV-FE model, a time-constant firm-specific dummy variable is incorporated for each sampled company, provided these variables remain constant over time but vary across company. In which case we have different intercepts for each company in the sample, thus Equation 3 above becomes:

$$Y_{it} = \alpha_i + \beta_1 X_{1it} + \beta_2 X_{2it} + \ldots + \beta_n X_{nit} + a_i + \mu_{it} \text{ ---------------------------------- (Eq.4)}$$

However, the researcher considered that including for instance a location dummy intercept for each individual company would be impracticable where we have datasets with large cross-sectional observations as is the case with this research where n = 803. This is because each dummy variable will remove one degree of freedom (df) from our model thereby giving wrong estimates of the coefficients of the other explanatory variables. Nevertheless, the other two methods of estimating FE regression – the First Differencing (FD) and Between Effect (BE) equation models – involve manipulating the data in such a way that the fixed effect or time-constant variable is totally eliminated.

This is done by differencing equation. In the FD method the data in adjacent time periods is subtracted from one another in order to eliminate $a_{i.}$ For instant for a two-period dataset where t = 1 or 2, we have:

$$Y_{i2} = \alpha_i + \beta_1 X_{1i2} + \beta_2 X_{2i2} + \ldots + \beta_n X_{ni2} + a_i + \mu_{i2} \text{ --------------------------------- (Eq.5)}$$

$$Y_{i1} = \alpha_i + \beta_1 X_{1i1} + \beta_2 X_{2i1} + \ldots + \beta_n X_{ni1} + a_i + \mu_{i1} \text{ --------------------------------- (Eq.6)}$$

Therefore subtracting (Eq.6) from (Eq.5) we have;

$$Y_{i2} - Y_{i1} = \beta_1 \;\; X_{1i2} - X_{1i1} \;\; + \beta_2 \;\; X_{2i2} - X_{2i1} \;\; + \cdots + \beta_n \;\; X_{ni2} - X_{ni1} \;\; + (\mu_{i2} - \mu_{i1})$$

That is;

$$\Delta Y_i = \beta_1 \Delta X_{1i} + \beta_2 \Delta X_{2i} + \cdots + \beta_n \Delta X_{ni} + \Delta \mu_i \text{ --- (Eq.7)}$$

Where Δ = changes from one time period to another time period.

Thus, the FD model totally eliminates all time-constant variables from the regression model. The effect of this is that all constant explanatory variables drop off the model. This may mean dropping off some very important constant explanatory variables (Wooldridge, 2009), for instance Corporate Public Profile in the case of this thesis. Moreover using differencing equation with multi-periods panel data like in this thesis may produce biased standard errors. This is because with multi-period panel datasets the problem of serial correlation arises with the error term u_i where changes in error term (i.e. Δu_i) are serially correlated and thereby violate the basic regression assumptions of no autocorrelation in the error terms across observations. Furthermore, in the Between Effect model, we take the mean of each variable for each company across time and run a regression. A major flaw of this method is that it usually results in loss of information (Dougherty, 2007). Against this background therefore, the FE models generally, would yield consistent and efficient results only if the assumption that a_i correlates with other explanatory variables hold across time which is not always the case in most circumstances.

In contrast however, RE models assumes that the variations among groups lies in the variance of their error term and not in their intercept, therefore a_i is regarded as part of the errors and should not be correlated with other explanatory variables (Greene, 2008). Therefore RE models are designed in such a way to allow time-constant variables (capturing individual firm-specific characteristics) to be part of other explanatory variables. FE model on the other hand assumes that since the time-constant variables are unique to the individual companies, they need not be regressed with other variables and should therefore be dropped off in order to access the net effect of the other explanatory variables (Greene, 2008). In other words the FE model does not appear suitable where the researcher is interested in investigating variability due to time-constant causes such as industrial membership and other unobserved time-constant variables (Dougherty, 2007; Greene, 2008).

Moreover, while FE models are most suitable for investigating within entity variations, RE models are suitable for analysing clustered data, especially where the researcher is interested in variability both within and across entities in which case no fixed effect is assumed. In other words FE models take into account only the variability within individual companies and drops off all time-constant variables, hence making it difficult to make inferences about population effects. RE models on the other hand take into consideration the fact that some unobserved variables may be constant over time but vary between companies, while others may be constant between companies but vary over time, thus allowing inferences to be drawn beyond the sample used in the model. Consequently the RE models capture both the fixed and between effect (Dougherty, 2007).

Against this background therefore, the researcher considered the choice of RE regression models over the FE models most appropriate for this investigation given the assumption that the variation across companies is random and uncorrelated with other independent variables in the model and not whether or not it has a stochastic effect (Greene, 2008). The reason for this is that variations across entities, measured by corporate public profile in this thesis, are assumed to be one of the key explicator of CCID (Hackston and Milne, 1996; Campbell *et al.*, 2006). And since this variable is likely to drop off from the model with the use of FE models, the researcher decided against the FE estimation method. Therefore to test the hypotheses formulated in

Chapter 4 in exploring the motivations for CCID in annual report, the RE model estimated using the GLS regression was used in this thesis. This will not only control for the possible influence of unobserved firm specific variables but also ensure the robustness of our results (Garcia-Castro *et al.*, 2010).

6.3.4 Condition for Using RE Estimation Model

In addition to the basic assumptions for regression analysis stated in section 6.3.1 above, the researcher assumed the following in order to use RE estimation model:

1. That the error term ϵ_{it} consists of both a time-constant firm specific variable (a_i) and a time-varying firm specific variable (μ_{it}), where ϵ_{it} is the composite error term and ϵ_{it} = (a_i +μ_{it}) and is uncorrelated across time.
2. The idiosyncratic errors a_i and the unobserved effects μ_{it} that affect CCID are uncorrelated with other explanatory variables in all time periods (the assumption of strict exogeneity),
3. Each of the observed and unobserved variables is drawn randomly from a given distribution (Dougherty, 2007).

6.3.5 Model Specification

A standard RE model may be specified as follows;

$$Y_{it} = \alpha_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \ldots + \beta_n X_{nit} + \epsilon_{it} \text{ -- (Eq.8)}$$

Where; $\epsilon_{it} = \alpha_i + \mu_{it}$

Therefore the RE regression models specified with all the variables in our hypotheses is as follows:

$$\begin{aligned} \mathrm{VolCCID_{it}} = {} & \alpha_0 + \beta_1 \mathrm{PROFILE_{it}} + \beta_2 \mathrm{COMNews_{it}} + \beta_3 \mathrm{BODACTIVT_{it}} + \beta_4 \mathrm{OTHCOMM} + \\ & \beta_5 \mathrm{EXTAUD_{it}} + \beta_6 \mathrm{OTHCSRD_{it}} + \beta_7 \mathrm{CSRNews_{it}} + \beta_8 \mathrm{R\&D_{it}} + \beta_9 \mathrm{LnTURN_{it}} + \\ & \beta_{10} \mathrm{ROE_{it}} + \beta_{11} \mathrm{LEV_{it}} + \beta_{12} \mathrm{AGE_{it}} + \alpha_i + \mu_{it} \text{ -------------------------------------- (Eq.9)} \end{aligned}$$

The definitions of the variables in this model and additional variables in subsequent models are summarized in Table 6.1 below.

Table 6. 1: Definition of variables

Variables*	Definitions
VolCCID	Volume of CCID based on word count (see Chapter 5, sub-section 5.4.2.3).
PROFILE	Dichotomous: where 1 = High public profile and 0 = Low public profile (see Chapter 4, sub-section 4.2.1 for details of classification)
COMNews	Media coverage on community issues (word count see Table 5.4 for criteria)
BODACTIVT	Defines the activities of the board of directors and measured by: 1) BODMET: Defined as the number of board meetings in a year. 2) BODCOMP: Defined as the proportion of total independent non-executive directors to total directors on the board. 3) BODSIZ : Defined as the total number of directors on the board
OTHCOMM	Defines the existence of other standing committees and measured by: 1) DISCOM: Disclosure committee measured as a dichotomous variable where 1 = Presence of disclosure committee and 0 = otherwise. 2) RISCOM: Stand-alone Risk committee measured as a dichotomous variable where 1 = Presence of risk committee and 0 = otherwise. 3) CSRCOM: CSR committee, measured as dichotomous variable where 1 = Presence of CSR committee and 0 = otherwise
EXTAUD	Dichotomous: where 1 = Audited by Big 4[27] Audit firm and 0 = otherwise.
OTHCSRD	Defines other CSRD; measured by word count.
CSRNews	Media coverage on CSR issues (word count see Table 5.4 for criteria)
R & D	Research and Development expenditure.
SIZE	Measures of company size (DataStream mnemonic code in parenthesis): 1) Ln-TURN = Turnover – Net Sales or Revenues (WC01001) 2) Ln-EMPLOY = Employee – Number of total employee (WC07011) 3) Ln-MKTCAP = Market capitalization – Market price at year end X common shares outstanding (WC08001) 4) Ln-TOTASS = Total assets (WC02999)
PROFITABILITY	Defines the financial performance of corporations and is measured by; ROE = Return on Equity (WC08301)
LEV	Defines the gearing ratio – the corporations' exposure to short and long term risk and is measured by the ratio of total debt to total capital. (WC08221)
AGE	Listing age

*All data were sourced from company's annual reports, Thompson Reuter DataStream and Lexis Library.

[27] Big4 auditors are made up of Deloitte and Touché, Ernst and Young, KPMG Audit and PricewaterhouseCoopers.

6.4 Data Analysis

6.4.1 Descriptive Statistics

The descriptive statistics describe the data to be used in measuring each of the variables, thus providing very useful information about the variables used in the analysis. For instance, the mean measures the central tendency of a variable, which is an indication of the popular position of the variable among the companies sampled, while the standard deviation measures the dispersion from the mean. Table 6.2 below presents the descriptive statistics for the dependent variable VolCCID by industry while Table 6.3 shows the descriptive statistics for continuous independent variables (IVs) and Table 6.4 shows the descriptive statistics for the dichotomous independent variables.

Table 6. 2: Descriptive Statistic for VolCCID (word count) by Industry

Industries	Mean	Std Dev	Median	Min	Max
Basic Materials	484	475	404	0	2214
Consumer Goods	492	475	335	0	2182
Consumer Services	546	365	515	0	1728
Financials	481	378	400	0	1688
Health Care	665	929	226	0	3271
Industrials	275	311	169	0	1319
Oil and Gas	288	262	230	0	1027
Technology	208	279	104	0	1249
Telecommunication	370	340	335	0	1255
Utilities	593	536	495	0	2442
Total	**437**	**479**	**308**	**0**	**3271**

Table 6.2 shows Health care industry as having the highest average volume of disclosure of 665 words per year with some companies within the industry disclosing as high as 3200 words in a year. The Health care industry is followed closely by Utilities with an average of 593 words per year while some companies within the industry discloses as high as 2400 words in a year. However on the average a typical company in the sample discloses around 400 words per year while companies in the Technology, Industrials and Oil & Gas industries have the lowest average disclosures per year of 208, 275 and 288 respectively.

Table 6. 3: Descriptive Statistic for Continuous IVs

Variables	Mean	Std Dev	Min	Max	Skewness	Kurtosis
VolCCID	437	479	0	3271	2.143	9.406
COMNews	6770	2392	3500	12844	0.410	2.060
BODMET	8.37	2.68	2	16	0.562	3.034
BODCOMP	0.61	0.14	0	0.93	-0.435	4.336
BODSIZ	10.3	2.94	5	18	0.409	2.640
OTHCSRD	1815	1562	0	12400	2.056	10.08
CSRNews	18219	9512	0	39493	0.534	2.653
R & D (£'m)	990.54	471.18	0	2250	-0.028	3.400
Turnover (£'m)	7,417.96	17,738.1	6.955	196,057.3	6.130	49.36
ROE (%)	16.50	17.92	-25.32	53.42	0.054	3.151
Leverage (%)	39.09	25.59	0	98.8	0.249	2.406
Age (yrs)	23.08	19.04	1	65	0.782	2.253

Table 6.3 on the other hand reveals that average disclosure on other CSR themes (OTHCSRD), like human resources, health and safety, environmental, etc. was approximately 1800 words with some companies disclosing as high as 12400 words in some years. On average, media coverage on community issues (COMNews), measured in words were well over 6500 words per year, with a minimum of 3500 and maximum of approximately 12800 words during the period. Similarly, average media coverage on other CSR issues (OTHCSRD) during the period under review was approximately 18000 words per year with a maximum of over 39000 words in some years.

The board members of most of the companies sampled comprised an average of 61% non-executive directors (BODCOMP) with a maximum of 93% in some companies, while board size (BODSIZ) ranges from 5 to 18 members with an average of 10 board members in most companies. Board meeting frequency (BODMET) ranges from 2 to 16 meetings with most companies having an average of 8 meetings per year. An average of approximately £900m per year was invested in research and development expenditure (R & D) by most companies with a few companies investing as much as £2b in some years. Turnover for companies sampled ranges between £6m and £196bn with the average in the region of £7bn. This distribution of turnover statistics suggests that the sample represents a wide range of companies of different sizes, from the very small with turnover of £6m to the very large with turnover of £196bn. In addition, the profitability measure (ROE) was approximately 16% for most companies in the sample. Gearing ratio for most companies was in the region of 39% with some almost fully geared at 98.8%, while some other companies are 100% equity financed and 0% gearing. The average listing age of companies in the sample was 23 years with some as old as 65 years.

Table 6. 4: Descriptive Statistic for Dichotomous IVs

Variables	Mean	Std Dev	Counts 0	1	N
PROFILE	0.603	0.489	319	484	803
DISCOM	0.212	0.409	633	170	803
RISCOM	0.314	0.464	551	252	803
CSRCOM	0.323	0.468	544	259	803
EXTAUD	0.864	0.343	109	694	803

Table 6.4 above revealed that about 60% of the companies in the sample have high public profile. Also, while only 21% of sampled companies had a disclosure committee, 31% had a risk committee and 32% had a CSR committee during the period covered in the investigation. The table also revealed that about 86% of sampled companies are audited by at least one of the Big4 audit firms during the period.

Furthermore a cursory look at the statistics on the last two columns on the right hand side of Table 6.3 shows the skewness and kurtosis of the continuous variables. Skewness and kurtosis statistics are used to examine how the distribution of a variable deviates from normal. The rule of thumb for a normal distribution is that the skewness statistics should be as close to zero as possible while the kurtosis statistics should be as close to three as possible (Park, 2008). Table 6.3 above shows that all variables fell within the threshold of zero and three for skewness and kurtosis respectively without any adjustments except for VolCCID, OTHCSRD, and Turnover. The implication of this is that the datasets for VolCCID, OTHCSRD, and Turnover contain some unusual observations known as outliers. Since the presence of outliers in datasets may lead to the violation of some of the assumptions stated in sub-section 6.3.1 above (Tabachnick and Fidell, 2007), the researcher conducted further graphical checks on these variables by plotting the Box Plots on their raw data.

The researcher considered the choice of a box plot better than other graphical methods such as Stem-and-Leaf Plot, Dot Plot and the Q-Q Plot because of its instinctive nature. It gives the visual picture of the distributions and therefore detects outliers spontaneously as little dots on the graph (Park, 2008). A box plot summarizes the 25^{th} percentile (that is 1^{st} quartile), the 50^{th} percentile also known as the median and the 75^{th} percentile (the 3^{rd} quartile) using a box and lines. A normally distributed variable will have its 25^{th} and 75^{th} percentile symmetrical; while its median and mean will be located at the same point in the centre of the box (Park, 2008).

In this thesis checks conducted revealed the presence of outliers in all three variables identified above. However, despite taking out the extreme outliers, the three variables did not satisfy the least square assumption of normality. This is because variables such as this often involve very large and very small data with very wide and unequal variations. The variables were therefore log-transformed in order to remove the influences of skewness and kurtosis, outliers and any unequal variation in the datasets. Figures 6.1 and 6.2 shows the graphical results of the Box Plot of all three variables before and after transformation, while other cases of extreme outliers found in R&D and CSRNews were taken out thereby reducing the sample to 798.

Figure 6. 1: Box Plot of variables before transformation

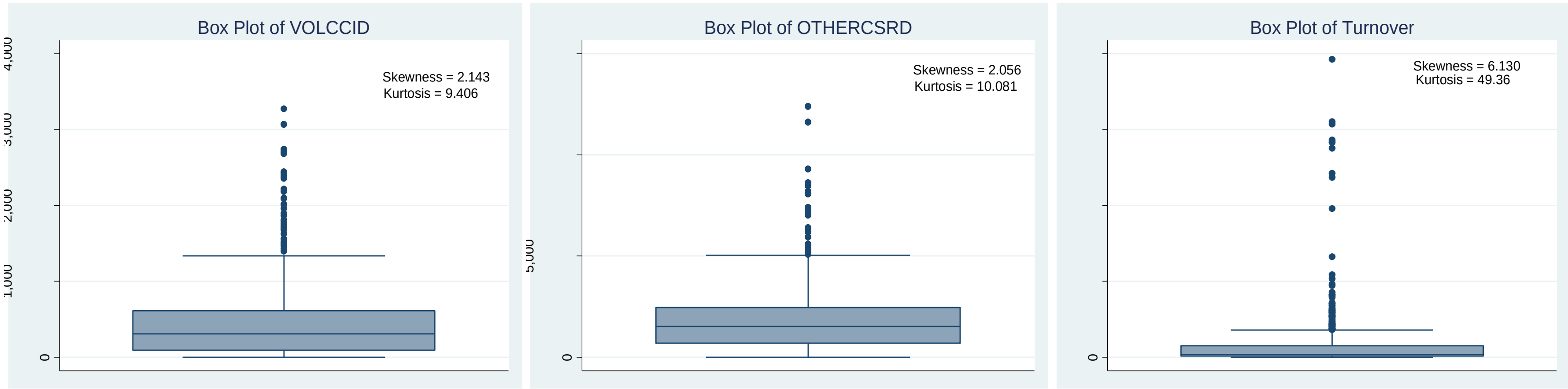
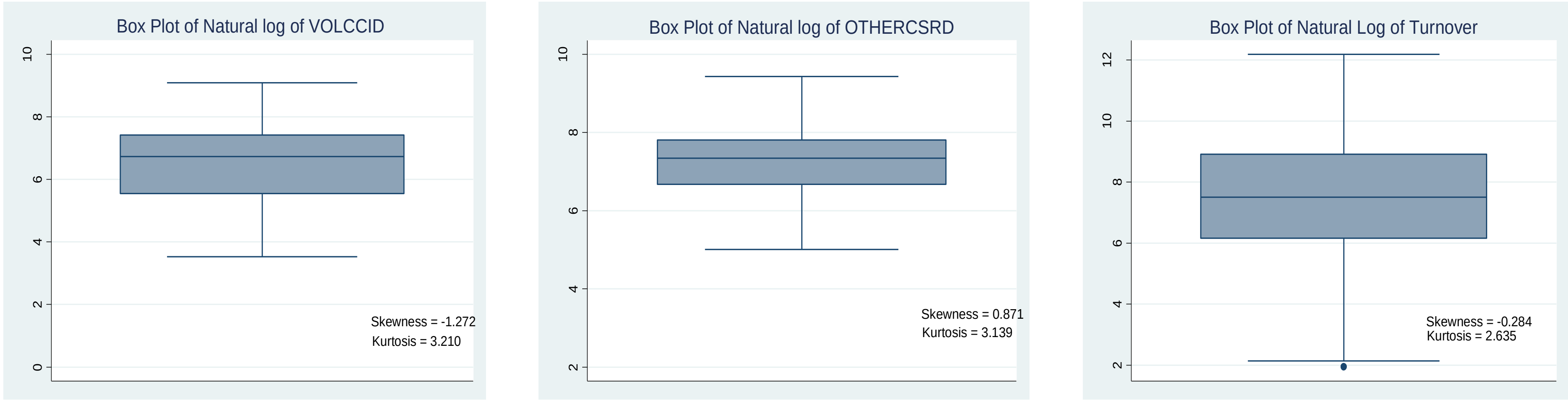


Figure 6. 2: Box Plot of variables after transformation



6.4.2 Checking Normality of Residuals

Normality refers to the assumption that the sample used in the investigation is drawn from a normally distributed population. Although the assumption of normality is not a prerequisite for the GLS estimator to be BLUE (for reasons discussed in sub-section 6.3.1 of this chapter), the assumption of normality is very critical to the validity of regression results when the researcher is interested in testing hypotheses (Wooldridge, 2009). The assumption requires that the errors or residuals be normally distributed, only then are the p-values for the t-tests and F-test assumed to be valid. If the assumption of normality of residuals is violated, the p-values will be unreliable hence interpretation and inferences from the results might be invalid (Park, 2008). Two methods of testing for normality are the graphical and the numerical methods. The graphical method displays the distribution and can be accessed visually while the numerical method, such as the Jarque-Bera or skewness/kurtosis test and the Shapiro-Wilk *W* test, presents the statistics.

To check for normality, the researcher conducted a series of tests on the residuals. First the researcher predicted the studentized residuals (*r*) with the *predict* command in STATA, and plotted a histogram of *r* for visual analysis. The histogram in Figure 6.3 shows *r* as looking normally distributed. However for the sake of clarity, the researcher followed up with the Jarque-Bera (Skewness/Kurtosis) test and the Shapiro-Wilk *W* test. The Jarque-Bera test is designed to test not only the normality of residuals but also heteroskedasticity and serial correlation of regression residuals (Jarque and Bera, 1980). It is computed from skewness and kurtosis and follows the chi square (χ^2) distribution with two degrees of freedom asymptotically. The null hypothesis is that residual (*r*) is normally distributed. The *W* statistics of the Shapiro-Wilk test indicates normality if it is equal to one or as close to one as possible, while the null hypothesis is that *r* is normally distributed (Shapiro and Wilk 1965). The test statistics in Table 6.5 failed to reject the null hypothesis that *r* is normally distributed as both tests show p values greater than 0.05.

Figure 6. 3: Histogram of Residuals

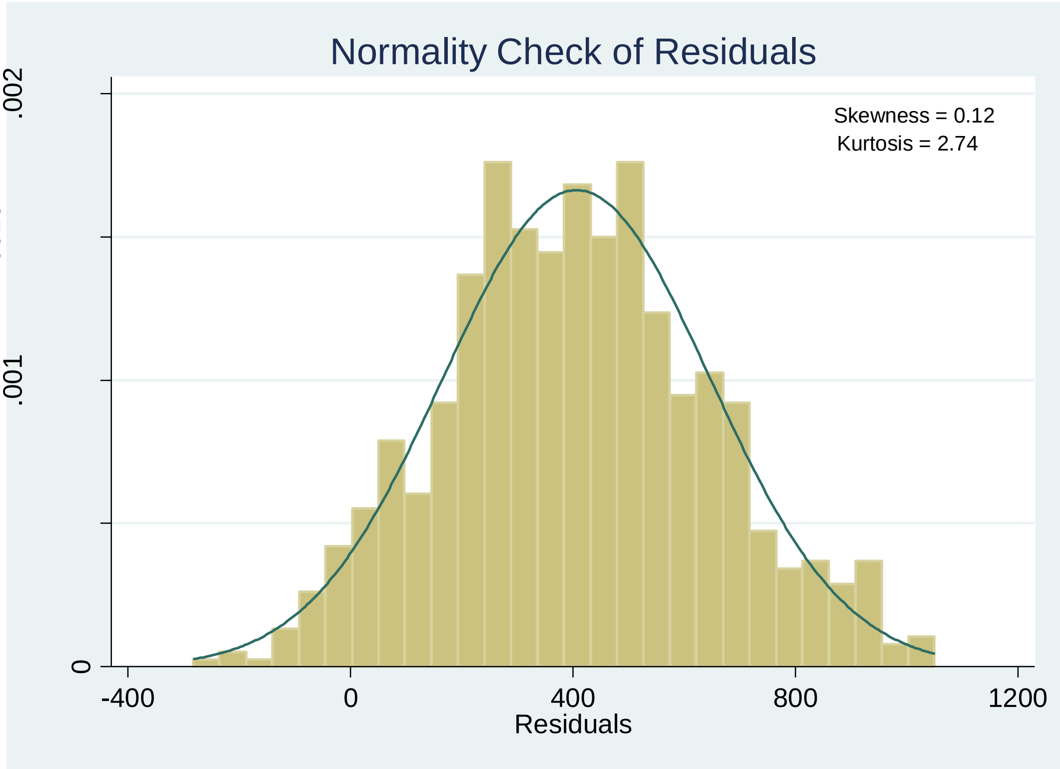


Table 6. 5: Normality Tests of Residuals.

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	joint Prob>chi2
r	798	0.154	0.113	4.54	0.1031

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
r	798	0.99621	1.946	1.634	0.05117

6.4.3 Correlation Analysis of Independent Variables

The correlation matrix and Pairwise correlation of the independent variables are presented in Tables 6.6 and 6.7 respectively. The correlation matrix measures the extent to which two variables change in conjunction with each other. It is obtained by multiplying the standard deviation by the correlation coefficients. Perfectly or strongly correlated variables violate assumption 3 of least square regressions stated in 6.3.1 above and may lead to multi-collinearity. Although multi-collinearity appears to be a ubiquitous problem in regression analysis, O'Brien (2007) maintained that there is really no cause for alarm, even if present. As long as it is not perfect, multi-collinearity does not affect the validity of the result as the estimates remain BLUE (O’Brien, 2007). However the presence of multi-collinearity is an indication that one or more of the variables are redundant and therefore gives no additional information. This would end up inflating the size of the error terms thus weakens the analysis (Tabachnick and Fidell, 2007).

However the correlation matrix in Tables 6.6 and 6.7 shows low correlation between the explanatory variables except for LnTURN having slightly high positive correlation of 0.63 with BODSIZ. Since these are below the threshold of (0.80) as suggested by Tabachnick and Fidell (2007:88), the researcher is of the opinion that, multi-collinearity, if it exists, should be minimal. Nevertheless since a degree of multi-collinearity may still occur with slightly high correlation and could affect confidence intervals for coefficients, which tend to become very wide and hence affect the t-statistics and the significance levels of variables (Tabachnick and Fidell 2007), the researcher considered it wise to check further whether multicollinearity was an issue and if so whether or not it was severe.

Table 6. 6: Pairwise Correlation of Continuous IVs

VARIABLES	COMNews	BODMET	BODCOMP	BODSIZ	LnOTHCSRD	CSRNews	R & D	LnTURN	ROE	LEV	AGE
COMNews	1.000										
BODMET	0.131*	1.000									
BODCOMP	0.191*	-0.019	1.000								
BODSIZ	0.028	0.046	0.187*	1.000							
LnOTHCSRD†	0.387*	0.212*	0.225*	0.275*	1.000						
CSRNews	0.515*	0.110*	0.067	0.082*	0.359*	1.000					
R & D	0.238*	0.047	0.138*	0.116*	0.327*	-0.049	1.000				
LnTURN†	0.091*	0.221*	0.205*	0.635*	0.456*	0.102*	0.287*	1.000			
ROE	0.052	0.080*	-0.004	0.067	0.103*	0.052	0.110*	0.197*	1.000		
LEV	0.050	0.100*	0.038	0.197*	0.185*	0.195*	0.017	0.361*	0.130*	1.000	
AGE	0.105*	0.077*	0.058	0.193*	0.290*	0.179*	0.254*	0.433*	0.097*	0.231*	1.000

*= Significant at P < 0.05
† = Variable with the Ln prefix were log transformed variables

Table 6. 7: Correlation Matrix of all IVs

VAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. PROFILE	1.000														
2. COMNews	-0.002	1.000													
3. BODMET	0.039	0.130	1.000												
4. BODCOMP	0.131	0.187	-0.022	1.000											
5. BODSIZ	0.234	0.018	0.043	0.183	1.000										
6. DISCOM	0.166	0.182	0.146	0.252	0.330	1.000									
7. RISCOM	-0.133	0.097	0.044	0.078	0.035	0.152	1.000								
8. CSRCOM	0.092	0.163	0.107	0.200	0.239	0.339	0.082	1.000							
9. EXTAUD	-0.006	0.113	0.109	0.132	0.126	0.131	0.134	0.128	1.000						
10. LnOTHCSRD	0.076	0.385	0.211	0.223	0.269	0.331	0.126	0.343	0.255	1.000					
11. CSRNews	0.079	0.515	0.111	0.069	0.078	0.053	0.126	0.101	0.104	0.359	1.000				
12. R&D	-0.046	0.232	0.045	0.135	0.109	0.242	0.026	0.208	0.194	0.323	-0.053	1.000			
13. LnTURN	0.287	0.090	0.219	0.201	0.634	0.344	0.162	0.291	0.280	0.455	0.103	0.286	1.000		
14. ROE	0.047	0.052	0.079	-0.006	0.068	0.151	0.013	0.112	0.026	0.102	0.051	0.107	0.197	1.000	
15. LEV	0.417	0.045	0.101	0.037	0.194	0.076	0.061	0.087	0.084	0.182	0.192	0.009	0.362	0.128	1.000
16. AGE	0.038	0.100	0.078	0.058	0.190	0.110	0.082	0.099	0.029	0.293	0.176	0.250	0.435	0.096	0.227

6.4.4 Multi-Collinearity Check

Following the above discussion therefore, the researcher computed Variance Inflation Factor (VIF) and the Tolerance level in addition to the correlation matrix. VIF of 10 and above and tolerance level of below 0.1 are usually regarded as indications of severe multi-collinearity, although there are no theories backing this up (O'Brien, 2007). Nonetheless the researcher computed the VIF and tolerance level for all the explanatory variables and compared the result with the correlation matrix. Table 6.8 presents the results which shows that all the VIF and Tolerance computed are far below the thresholds of 10 and 0.1 respectively. Consequently the researcher ruled out the tendency of severe multi-collinearity in the research model and is assured of the efficiency of the regression results.

Table 6. 8: Collinearity Diagnostics

Independent Variables	VIF	SQRT VIF	Tolerance	R-Squared
PROFILE	1.40	1.18	0.716	0.284
COMNews	1.63	1.27	0.615	0.385
BODMET	1.12	1.06	0.894	0.106
BODCOMP	1.16	1.08	0.862	0.138
BODSIZ	1.86	1.37	0.537	0.464
DISCOM	1.40	1.18	0.713	0.287
RISCOM	1.13	1.06	0.885	0.115
CSRCOM	1.25	1.12	0.801	0.199
EXTAUD	1.18	1.08	0.851	0.149
LnOTHCSRD	1.76	1.33	0.569	0.431
CSRNews	1.65	1.28	0.606	0.394
R & D	1.37	1.17	0.728	0.272
LnTURN	2.92	1.71	0.343	0.657
ROE	1.08	1.04	0.929	0.071
LEV	1.40	1.18	0.713	0.287
AGE	1.39	1.18	0.721	0.279
Mean VIF	1.48			

6.5 Regression Results and Discussions

The regression results in Table 6.9 show an overall R^2 of 0.424, with R^2 of within and between group of 0.392 and 0.475 respectively. The R^2 is a measure used to determine the explanatory power of models. The results indicate that the model specified in Eq.9 above is able to explain 42% of the overall variation in disclosure level in annual reports of sampled companies. Also the model is able to explain about 39% of variation within an entity from one year to another and about 48% of variations between one entity and another entity.

Table 6. 9: RE-GLS Regression Result with Ln-VOLCCID as dependent variable

Variables	**Coeffs.**	**Robust Std Error.**	**z-stat**	**p-value**	**VIF**
Constant	-3.405	1.299	-2.62	0.009***	
PROFILE [a]	0.948	0.295	3.21	0.001***	1.40
COMNews	-0.144	0.137	-1.05	0.292	1.63
CG Characteristics.					
BODMET	0.050	0.026	1.90	0.058*	1.12
BODCOMP	0.433	0.615	0.70	0.482	1.16
BODSIZ	0.040	0.038	1.07	0.283	1.86
DISCOM[a]	-0.382	0.166	-2.31	0.021**	1.40
RISCOM[a]	0.374	0.193	1.93	0.053*	1.13
CSRCOM[a]	0.278	0.150	1.85	0.064*	1.25
EXTAUD[a]	0.808	0.377	2.14	0.032**	1.18
Reputation Management Characteristics					
LnOTHCSRD[†]	0.702	0.101	6.97	0.000***	1.76
CSRNews	0.082	0.042	1.93	0.053*	1.65
R & D	0.001	0.000	3.90	0.000***	1.37
Firm-Specific Characteristics					
Size (LnTURN) [†]	0.066	0.081	0.82	0.413	2.92
Profitability (ROE)	0.003	0.004	0.93	0.353	1.08
LEV	-0.004	0.004	-0.97	0.332	1.40
AGE	0.008	0.007	1.07	0.286	1.39
R^2: Within = 0.392					
Between = 0.475	χ^2 =	**364.05*****		**N = 798**	
Overall = 0.424	***rho*** =	**0.314**			

**Significant at 1% = ($p \leq 0.01$), **Significant at 5% = ($p \leq 0.05$), *Significant at 10% = ($p \leq 0.10$).
[a] Dichotomous variable for industry sectors where 1 = Industry with High public profile and 0 for those with low public profile.
[†] Log transformed variables.

The table shows that the χ^2-statistics is significant at 1% level, thus indicating that the model is well specified and to a very large extent is able to explain the relationship between CCID and the explanatory variables. The results also show *rho* of 0.314. The *rho* measures the intergroup correlation (Greene, 2008). The results reveal that about 31% of variations in the volume of CCID cannot be explained by differences across entities. However before placing total reliance on these results in testing our hypotheses the researcher conducted further post-estimation test in order to examine the validity of the results by checking the suitability of the RE GLS estimator.

6.5.1 Checking the Efficiency of RE Estimator

The GLS regression as opposed to the OLS is designed to be able to deal with the problem of heteroscedasticity and serial correlation (see discussion in sub-section 6.3.1). Despite this fact however, the researcher carried out further post-estimation tests to examine the validity of the RE assumptions and its efficiency in dealing with the problem of heteroscedasticity and serial correlation. This was necessary to confirm the suitability of the RE estimation models in analysing the datasets collected for the investigation in this thesis. Additionally, given the panel nature of the data, one cannot rule out the existence of some contemporaneously exogenous variables. These are explanatory variables that, although they may be uncorrelated with the errors in the same time period, they may be correlated with the errors in other time periods (Wooldridge, 2009). If this happens, the RE assumption 2 of strict exogeneity (see sub-section 6.3.4), will be violated and thus produce invalid results. The researcher therefore performed the Breusch-Pagan Lagrange Multiplier (LM) tests to verify the suitability of RE estimator in handling such problems and thus confirmed further the superiority of RE-GLS regression over OLS or FE models for the investigation in this thesis.

The Breusch-Pagan LM test is a diagnostic test designed specifically to test the efficiency and validity of the RE models in handling unobserved heterogeneity by Breusch and Pagan (1980). In the Breusch-Pagan LM test the squared residuals are regressed on the explanatory variables. The null hypothesis is that variances across entities are zero, stated as H0 = no significant differences across entities. If the test fails to reject this hypothesis, the RE model will be considered unsuitable for this analysis (Baum, 2006).

Table 6. 10: Breusch & Pagan LM Specification test

```
Breusch and Pagan Lagrangian multiplier test for random effects

        LnVOLCCID[Id,t] = Xb + u[Id] + e[Id,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
               LnVOLCCID |   5.601423       2.366733
                       e |   2.099023       1.448801
                       u |   .9472339       .9732594

        Test:   Var(u) = 0
                              chi2(1) =   283.50
                          Prob > chi2 =     0.0000
```

However, the result in Table 6.10 rejected the null hypothesis in favour of the RE model estimator at the 1% significance level. Nevertheless, in addition to the LM test all regressions were run with the robust standard error, which automatically adjusted all standard errors and p-values for any possible effect of heteroskedasticity, outliers and any other irregularities and thus improve the validity of the results. Consequently, with the benefit of hindsight, the researcher is assured that the results obtained with our models using the RE-GLS regression are free of biases and can be relied upon. Therefore the results of testing the various hypotheses developed in Chapter 4 are discussed in subsequent sections.

6.5.2 Community Disclosure vs. Corporation's Vulnerability to Criticism

Vulnerability to criticism was measured by Corporate Public Profile (PROFILE) where companies belonging to industries regarded as vulnerable are classified as high public profile companies, while those with low vulnerability are classified otherwise. See Chapter 4, sub-section 4.2.1 for detailed discussions on this. Nevertheless the results in Table 6.9, shows a strong positively significant relationship at 1% level with a coefficient of 0.948 and standard deviation of 0.295 between corporate public profile and the volume of CCID. As public profile is a dichotomous variable with 1 representing companies in high public profile industries and 0 representing those in low public profile industries, our result suggested that companies in high public profile industries disclosed more community activities than those in lower public profile industries, thus echoing Campbell *et al.* (2006). Therefore the null hypothesis H1 of no statistical relationship does not hold and would therefore be rejected. This finding supports a legitimacy-theory-based explanation for CCID, in that corporations that considered themselves vulnerable to criticism disclose more community activities in annual report as a legitimising strategy (Parsons, 1960; Dowling and Pfeiffer, 1975). The finding is also consistent with those of Adams *et al.*, (1998) and Hackston and Milne, (1996).

6.5.3 Community Disclosure vs. Community Expectation

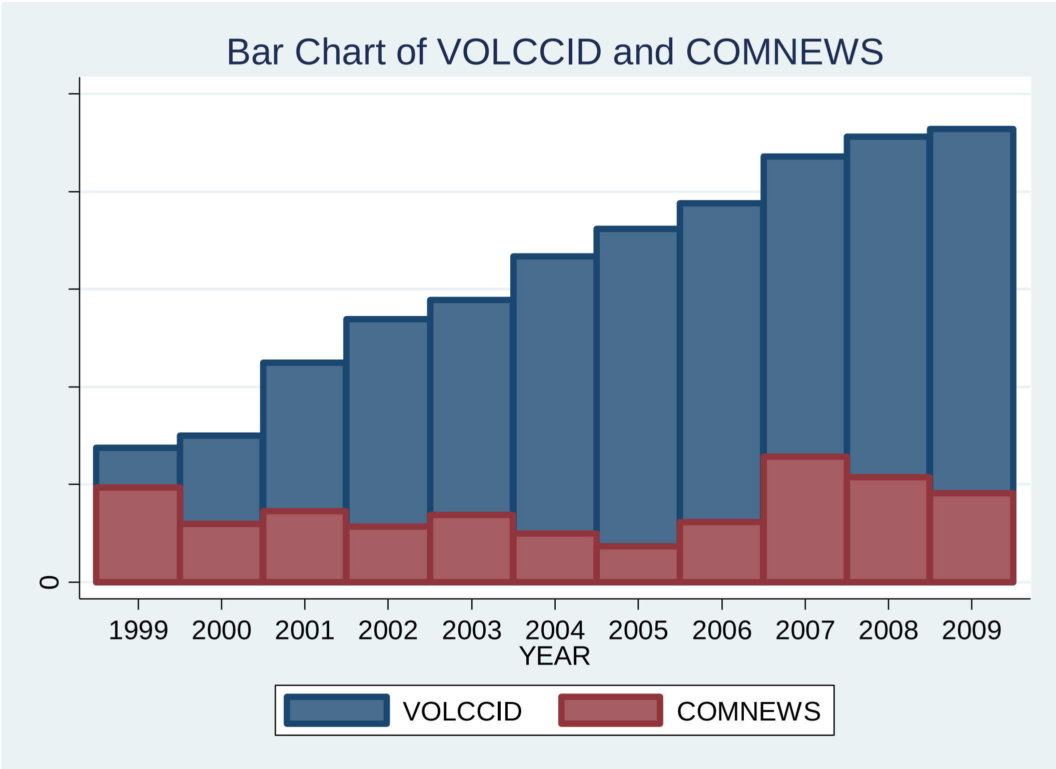
Community expectation was measured by media coverage on community issues. Previous studies (Ader, 1995; Brown and Deegan, 1998; O'Donovan, 1999; Deegan *et al.*, 2002) have shown that coverage of specific issues in the print media helps shape the overall expectation of the community regarding those issues (see detailed discussion in Chapter 4, sub-section 4.2.2). Accordingly word counts of all relevant articles in the print media mentioning corporate involvement in community related issues such as community development, healthcare, the arts and educational sponsorship and scholarships from period 1999 to 2009 were obtained from the LexisNexis Library. The Library provides access to a large database of searchable up-to-date documents from over 40,000 legal, news and business sources across the globe.

Table 6. 11: Aggregated Volume of CCID vs. media coverage

Year	VOLCCID (word count)	COMNews (word count)
1999	13720	9686
2000	14975	5953
2001	22492	7256
2002	26916	5690
2003	28894	6846
2004	33362	4951
2005	36186	3629
2006	38800	6135
2007	43553	12844
2008	45629	10721
2009	46376	9070

To ensure an adequate reflection of media coverage on community issues, all UK national and regional newspapers having wide circulations and present in the database from 1999 to 2009 were used for this study (see Appendix 5 for a list of newspapers used). Consecutively, the word counts of media articles on community issues were obtained for each year and compared with the aggregated volume of CCID in annual reports for each corresponding year (see Table 6.11 above).

Figure 6. 4: CCID vs. Media coverage on community Issues.



A graphical analysis of the VOLCCID/COMNews relationship in Figure 6.4 above shows an erratic relationship between media coverage on community issues and the volume of community disclosure in annual reports. This is also consistent with the regression result obtained in Table 6.9 above, where COMNews was regressed along with other variables. The regression result produced an insignificant inverse relationship with a coefficient of -0.144, thus failing to reject H2 of no significant relationship. The implication of this is that CCID in annual reports are rarely influenced by community expectation measured by print media coverage on community issues. Deegan *et al.* (2002) documented a similar result when they investigated the effect of media coverage on the disclosures of five CSR themes in the annual reports of BHP over a period of 15years (1983 to 1997). They found that community disclosure among other CSR themes had an erratic relationship with media coverage on community issues.

The finding indicates that management is less motivated by the dictates of the community-stakeholder group in what community activities they are involved in, and the disclosure of it in annual reports. Thus the result does not seem to support the model in Figure 3.2 of Chapter 3, that the community group establishes the expectation-gap. Nevertheless the results supported the stakeholder identification and salience model of Mitchell *et al.* (1997). It confirms the fact that the community-stakeholder group falls into the dependent and the *ignored* category (Figure 3.3 of Chapter 3). It also confirms that other groups of stakeholders, to whom managers may be more obliged to accord higher salience than the community group, may indeed have greater influence on managers to disclose CCI than the community group itself (Mitchell *et al.*, 1997).

This may be explained further by the findings of Waddock & Graves (1997b) on the Standard and Poor (S&P) 500 companies of the US. Waddock & Graves (1997b) found that, in the *fortune* management survey, managements of the (S&P) 500 companies that exhibited strong performance in community relations received very low ratings in the survey, compared to those that exhibited strong performance in respect of stockholders, employee-relations and product-customer relations. Consequently since CCID does not translate into a high evaluation of them as managers, they will be less motivated in future to disclose more of it. In other words the manager values the ratings of the investors-stakeholder group than the concerns/expectations of the community-stakeholders group. Arguably, if we apply the findings of Waddock & Graves (1997b) to the UK FTSE 350 companies, one may argue that, given the results of this current study in Table 6.9 above, the motivation for community activities and disclosures is driven more by factors other than community expectation, or by the expectation of other groups of stakeholders (Figure 3.1, Chapter 3) rather than the community-stakeholder group. This fact is explored further in Chapter 7 of this thesis.

Furthermore the results show lack of support for legitimacy based argument. Legitimacy theory posits that for legitimisation to be achieved the corporation's activities should be congruent with those of the community within which it operates (Parsons, 1960; Dowling and Pfeiffer, 1975). This does not seem to be the case here. Therefore, even if CCID is a legitimisation strategy as evident in sub-section 6.5.2 above, it does not seem that corporations are able to achieve legitimisation with this group of stakeholder.

6.5.4 Community Disclosure vs. Accountability and Control

6.5.4.1 Board Activities

Of all three measures of board activities only BODMET with a coefficient of 0.050 shows a marginally significant relationship with Ln-VOLCCID. Thus indicating that board meeting frequency could by chance have an influence on CCID. On the other hand board composition (BODCOMP) with a coefficient of 0.433, has a stronger positive relationship with Ln-VOLCCID. Although, the result is not significant and thus requires cautious interpretation, the strong positive relationship imply that companies with a board constituting non-executive directors of 60% and above are more likely to disclose community activity than those with less non-executive directors. The explanation for this is consistent with the stakeholder identification and salience model of Mitchell *et al.* (1997) where non-executive directors are depicted as dominant stakeholder group representing the interests of other stakeholders apart from the shareholders and therefore have the power to influence management to disclose more community activities in the interests of community stakeholders. The positive relationship is also consistent with those of Webb (2004) and Ajinkya *et al.* (2005). Nevertheless earlier studies like Forker (1992) and Ho and Wong (2001) also reported no significant association. Forker (1992) attributed their findings to measurement error as not all the companies in their sample disclosed non-executive directors. However, since the publication of the Combined Code (1998), corporations are obliged to disclose the non-executive directors to show compliance to the requirements of the code. Consequently the researcher is convinced that the samples in this investigation are free from measurement error as all companies in the sample disclosed non-executive directors.

Similarly a positive association with coefficient 0.040 was found between BODSIZ and Ln-VOLCCID, indicating that board size may influence volume of disclosures but since the result is not significant it requires cautious interpretation as well. Nonetheless, the positive association supported the findings of Wilson and Lombardi (2001); Webb (2004) and Galbreath *et al.* (2008) who found evidence that larger boards are more effective in CG processes than smaller boards as against Yermack (1996) and Song and Windram (2004) whose evidence were in favour of smaller boards.

6.5.4.2 The existence of other standing committees

The existence of a disclosure committee (DISCOMM) was found to have a negatively strong association with VolCCID with a coefficient of -0.382 which is significant at the 5% level. Since the disclosure committee sees to the accuracy and timely decisions regarding disclosures (Daly and Bocchino, 2007), a plausible explanation for the inverse relationship might be that companies establish disclosure committees or rather activities of disclosure committee increases following poor disclosures of community activities in prior years in order to enhance the accuracy and extent of disclosure in future.

Conversely, standalone risk committee was found to have a positively strong association with the VolCCID with a coefficient of 0.374 but marginally significant at 10% level. This is Indicative of the fact that there is a slight chance of companies with standalone risk committee disclosing higher volume of CCID than those without standalone risk committee. Risk committee's function among others things included the management of risks, such as those that may affect the reputation and continuous existence of the corporation. Therefore the possible explanation of this finding is that the non-disclosure or poorly disclosed CCI information in annual reports might be regarded as a *"reputation risk"* (Bebbington *et al.*, 2008a:340). Hence the risk committee manages community risk by not only ensuring the annual disclosure of it but also ensures that such disclosure is of good quality. This is consistent with the assertions of Graves & Waddock (1994); Tom (2002); Bebbington *et al.* (2008 a&b) that social information disclosures are a form of reputation-risk management.

Similarly the results indicate a marginally significant relationship at 10% with a coefficient of 0.278 between CSR committee (CSRCOM) and the VolCCID. This is somewhat disappointing; the researcher would have expected that CSRCOM should have a stronger influence on CCID since they were established for the administration of CSR issues. Nevertheless, the result is consistent with that of Cowen *et al.* (1987) who found CSR committee having a strong association with only human resources information and not with other CSR themes, indicating that CSR committees wherever established are more concerned with human resources issues. In this study a 10% significance level indicate that there is a slight chance that CSR committee activity might influence the disclosure of community involvement activities in annual reports.

6.5.4.3 Other Governance Variable

Type of external auditors, has a strong positively significant association with Ln-VOLCCID with a coefficient of 0.808 and at the 5% significance level. The implication is that companies audited by one of the Big 4 audit firms disclose higher volume of community activities than those audited by other firms. This finding is consistent with that of Forker (1992); Haniffa and Cooke (2002); Mangena and Pike (2005).

6.5.4.4 Summary on CG Variables

Taken together, the findings in this section suggested that VOLCCID, according to agency theory responded to some CG monitoring mechanisms such as instituting a disclosure committee, a standalone risk committee, a CSR committee and employing the services of a Big 4 audit firm. Agency theory posits that management will disclose more information in response to monitoring mechanisms put in place by the principal (Jensen and Meckling, 1976; Fama and Jensen, 1983). However, the findings show that VOLCCID responded more to the standing committees than to board activities. The plausible explanation for this may be in line with the argument of Vafeas (1999) that most of the monitoring tasks of the board have been delegated to the standing committees, therefore the boards are left with the coordination of standing committees' activities rather than the direct monitoring of management, which explains why BODMET was the only significant variable among the other variables measuring board activities.

6.5.5 Community Disclosure vs. Reputation Management

This thesis argued that if CCID is reputation-enhancement motivated (see Chapter 4, sub-section 4.2.4), then CCID should not only respond to OTHCSRD which has been argued to be reputation enhancing (Tom, 2002; Hasseldine *et al.,* 2005; Bebbington *et al.*, 2008a&b), but should also respond to CSRNews and other reputation enhancing variables such as R & D (Beliveau *et al.*, 1994). Against this background therefore, this section tested, in the null form, the hypothesis that CCID has no significant relationship with reputation enhancement, measured by LnOTHCSRD, CSRNews and R & D.

The results in Table 6.9 show a positively strong and significant relationship at 1% level with a coefficient of 0.702 between the LnVOLCCID and LnOTHCSRD. The implication of this is that as disclosures of other CSR information increased in annual reports, information on community involvement also increased. Nevertheless while CSRNews with a coefficient of 0.082 was significant at 10%, R&D expenditure was significant at 1% level, indicating that those who engage in R&D also disclosed more community activities. With these findings the researcher was able to reject hypothesis H4 of no statistical relationship with reputation enhancement and the alternative hypothesis that a relationship indeed exists is accepted. These findings also supported agency theory explanation for CCID, from the point of view of management reputation enhancement strategy. Beliveau *et al.*, (1994) and Campbell, (2000) documented that managerial reputation is also a key factor when deciding what to disclose in annual reports in so far as management will embark on managerial enhancing schemes so as to be seen as good managers (Beliveau *et al.*, 1994; Campbell, 2000). The result is also consistent with the findings of Hasseldine *et al.*, (2005).

6.5.6 Community Disclosure and Firm Specific Characteristics

Hypothesis H5 tested for the effect of firm specific characteristics on CCID. The hypothesis specifically tested for the effect of: (a) size (measured by Log of turnover), (b) profitability (measured by ROE), (c) leverage and (d) listing age (measured by AGE). The result shows that while LnVolCCID is positively associated with Turnover, ROE and Age, with coefficients of 0.066, 0.003 and 0.008 respectively, it has a negative relationship with leverage (coefficient -0.004), thus indicating that larger firms that are well established, profitable and with lower gearing will more likely disclose higher community activities than younger and smaller ones who are highly geared and less profitable. However Turnover, ROE and AGE are not statistically significant with LnVolCCID. Although ROE and AGE are known to be notorious in literature, the insignificant Turnover/disclosure relationship is quite surprising and thus requires further analysis.

The insignificant VOLCCID/ROE relationship is consistent with studies like Hackston and Milne (1996); Ho and Wong (2001); Hasseldine *et al.* (2005), who also documented no statistical relationship; however other studies like Haniffa and Cooke, (2002) and Galbreath *et al.*, (2008) documented a statistical relationship. Similarly the positive but insignificant Age/disclosure relationship is consistent with the findings of Haniffa and Cooke (2002) and Galbreath *et al.* (2008) who also reported no statistical relationship between social disclosure and listing age.

Furthermore, while the negative leverage/disclosure relationship is consistent with earlier studies such as Belkaoui & Karl (1977), who also found a negative relationship between leverage and CSRD, some recent studies (Tsamenyi *et al.*, 2007; Galbreath *et al.,* 2008) found positive relationships. Nevertheless Watson *et al.* (2002) argued that the direction of the leverage/disclosure relationship is inconclusive. Also while studies like Galbreath *et al.* (2008) and Garcia-Castro *et al.* (2010) found a significant relationship, other studies such as Haniffa and Cooke (2002) and Mangena & Pike (2005) found no significant relationship. However the possible argument in favour of a negative relationship is that highly geared companies may tend to disclose less of community information as debt holders are less likely to demand such disclosures (Belkaoui & Karl, 1977).

6.6 Further Analysis and Robustness Checks

Concerned about some of the unexpected results obtained from the RE-GLS regression, the researcher decided to carry out further analysis. For instance turnover compared to other studies produced an insignificant coefficient of 0.066. Turnover has been used extensively in the literature to proxy for company size, and many studies (for instance, Patten, 1991 & 1992; Hackston and Milne, 1996; Adams *et al.,* 1998; Ho and Wong, 2001; Campbell *et al.*, 2006) all provided evidence that larger firms are under more pressure to disclose social information as it is expected that their activities will have greater impact on society than smaller ones.

The researcher was able to identify three main issues as probable reasons for differences in results. Firstly, a general review of the above literature revealed that, in contrast to the method used in this thesis, most of these studies used either non-parametric methods of analysis (Adams *et al.*, 1998; Campbell *et al.,* 2006) or mainly OLS estimations (Patten, 1991 & 1992; Hackston and Milne, 1996; Ho and Wong, 2001). Secondly, the use of different measures for company size might also be a probable reason for differences in results. Other measures of company size in literature included number of employees, total assets and market capitalisation. Lastly the researcher is of the opinion that the high correlation observed between LnTURN and BODSIZ might yet be another issue for concern. Therefore to rule out the possible influences of any of these issues on the RE-GLS estimation obtained in Table 6.9, further analysis carried out by the researcher included correcting for any effect of multi-collinearity, alternating LnTURN with other measures of company size, introducing additional variables, and finally comparing results from alternative methods of estimation with the results from the main model of this thesis.

6.6.1 Multi-collinearity

Ways of correcting for multi-collinearity included dropping the offending variable and/or introducing additional variables (Tabachnick and Fidell, 2007). However after checking other measures of company size in literature; Number of employees (LnEMPLOY), Total assets (LnTOTASS) and Market capitalisation (LnMKTCAP), the researcher observed that LnTOTASS has high correlation with LnEMPLOY (0.74) and LnMKTCAP (0.78). LnTOTASS is also highly correlated with BODSIZ (0.71). Therefore since these variables might be collinear and cannot be included in the same model (Tabachnick and Fidell, 2007, p89), the researcher re-specified (Eq.9) alternating each of the measures of size while BODSIZE was dropped whenever LnTURN and LnTOTASS were used to proxy for size. This was done, firstly, to see the effect of these variables in the model as an alternative measure of company size, in order to allow for comparability with similar studies and secondly to check the effect of collinearity with BODSIZ.

Table 6.12 displays the regression results using four different variants of Eq.9. Model 1 presents the result of the regression of all the variables in Eq.9 except BODSIZ. Models 2 & 3 have LnTURN replaced with LnMKTCAP and LnEMPLOY. However while Model 2 has BODSIZ included, it was dropped off from Model 3. In Model 4 LnTOTASS was used in place of LnTURN, LnMKTCAP and LnEMPLOY as proxy for size while BODSIZ was dropped from the model. All regressions were run using GLS-RE estimator with robust standard error, in order to adjust all standard errors and p-values for any possible effect of heteroskedasticity, outliers and any other irregularities. The correlation matrix and VIF computation are presented in Appendices 6 and 7 respectively.

Table 6. 12: RE-GLS Regression Result for test of multi-collinearity

Models Variables	1 Coeff (z-stat)	2 Coeff (z-stat)	3 Coeff (z-stat)	4 Coeff (z-stat)
Constant	-3.248 (-2.55)**	-3.573 (-2.61)***	-3.399 (-2.49)**	-3.312 (-2.64)***
PROFILE	0.952 (3.09)***	1.024 (3.52)***	1.062 (3.44)***	0.848 (2.65)***
COMNEWS	-0.145 (-1.07)	-0.186 (-1.38)	-0.173 (-1.28)	-0.154 (-1.14)
Corp. Gov. Var.				
BODMET	0.048 (1.84)*	0.052 (1.99)**	0.048 (1.86)*	0.047 (1.80)*
BODCOMP	0.484 (0.78)	0.957 (1.58)	1.049 (1.72)*	0.441 (0.71)
BODSIZ		0.076 (2.11)**		
DISCOM	-0.364 (-2.25)**	-0.527 (-3.41)***	-0.468 (-3.06)***	-0.385 (-2.37)**
RISCOM	0.345 (1.76)*	0.312 (1.60)	0.267 (1.34)	0.315 (1.57)
CSRCOM	0.280 (1.85)*	0.322 (2.20)**	0.330 (2.23)**	0.286 (1.89)*
EXTAUD	0.780 (2.15)**	0.751 (2.03)**	0.712 (1.96)**	0.800 (2.17)**
Reputation Mgt. var.				
LnOTHCSRD†	0.698 (6.84)***	0.682 (7.07)***	0.682 (6.91)***	0.692 (6.92)***
CSRNews	0.079 (1.87)*	0.071 (1.63)	0.066 (1.54)	0.075 (1.79)*
R & D	0.001 (3.91)***	0.001 (3.45)***	0.001 (3.41)***	0.001 (3.98)***
Firm-Specific Var.				
Size: LnTURN	0.111 (1.38)			
LnEMPLOY†		-0.092 (-1.35)	-0.046 (-0.63)	
LnMKTCAP†		0.103 (1.64)	0.111 (1.76)*	
LnTOTASS†				0.149 (2.11)**
Profitability: ROE	0.003 (0.87)	0.003 (0.78)	0.002 (0.63)	0.004 (1.12)
LEV	-0.004 (-1.02)	-0.004 (-1.19)	-0.005 (-1.37)	-0.005 (-1.23)
Listing Age	0.008 (1.05)	0.011 (1.48)	0.012 (1.54)	0.007 (0.98)
R^2: Within =	**0.394**	**0.399**	**0.400**	**0.398**
Between =	**0.455**	**0.475**	**0.438**	**0.471**
Overall =	**0.415**	**0.432**	**0.415**	**0.424**
χ^2 =	**354.55*** **	**376.90*** **	**346.47*** **	**363.84*** **
N =	**798**	**798**	**798**	**798**

***Significant at 1% = ($p \le 0.01$), **Significant at 5% = ($p \le 0.05$), *Significant at 10% = ($p \le 0.10$).
† Log transformed variables.

The results from all four models are very similar to those of the main model reported in Table 6.9. The statistically significant variables remained significant except for RISCOM and CSRNews. RISCOM was marginally significant in Model 1 and remained insignificant in all the other three models, while CSRNews was marginally significant in Models 1 & 4 but insignificant in Models 2 & 3. Furthermore LnTURN and all other insignificant variables in the main model remained insignificant in all four models, except for BODSIZ that was significant at 5% level in Model 2. The implication of this is that the insignificance of BODSIZ in the main model could be attributable to the collinearity with LnTURN. However even when BODSIZ was dropped from the equation LnTURN remained insignificant. Nevertheless the result from Models 3 & 4 provided some support at 10% and 5% significance level respectively for VOLCCID/Size relationship when market capitalisation and total assets were used to proxy for size.

6.6.2 Addition of New Variables

As an additional robustness check the researcher introduced more variables into the model. Moreover introducing more variables may also help correct the effect of multi-collinearity and further improve the robustness of the model. Two additional CG variables measuring audit committee activities (AUDACTIVT) were introduced (AUDMET and AUDSIZ) into the models specified in Table 6.12. Return on Assets (ROA) was also introduced as an additional proxy for profitability (see Table 6.13 for definitions). The VIF computations and correlation matrix are presented in Appendices 8 and 9 respectively, while the GLS-RE regression results with robust standard error are presented in Table 6.14.

Table 6. 13: Definition of New Variables

Variables	Definitions
AUDACTIVT	Defines the activities of the audit committee and measured by: 1) AUDMET: Defined as the number of audit committee meetings in a year. 2) AUDSIZ: Defined as the number of Audit committee members.
ROA	Another measure of profitability. Measured by Return on Assets employed for the financial year (WC08376)

The results presented in Table 6.14, are still very similar to previous results in Tables 6.9 and 6.12. The key significant variables PROFILE, DISCOM, LnOTHCSRD and R&D remained significant at 1%. Similarly all insignificant variables remained insignificant, while size also remained marginally significant when measured by LnTOTASS and LnMKTCAP.

Table 6. 14: RE-GLS Regression with additional explanatory variables

Models	**5**	**6**	**7**	**8**
Variables	**Coeff (z-stat)**	**Coeff (z-stat)**	**Coeff (z-stat)**	**Coeff (z-stat)**
Constant	-3.332 (-2.53)**	-3.456 (-2.67)***	-3.887 (-2.76)***	-3.723 (-2.62)***
PROFILE	0.974 (3.13)***	0.864 (2.72)***	0.964 (3.37)***	1.034 (3.34)***
COMNews	-0.082 (-0.59)	-0.098 (-0.71)	-0.140 (-1.04)	-0.119 (-0.87)
Corp. Gov. Variables				
BODMET	0.037 (1.41)	0.036 (1.35)	0.039 (1.48)	0.035 (1.36)
BODCOMP	0.171 (0.27)	0.321 (0.50)	1.052 (1.72)*	0.991 (1.59)
BODSIZ			0.094 (2.42)**	
AUDMET	0.205 (3.01)***	0.194 (2.88)***	0.166 (2.55)**	0.181 (2.73)***
AUDSIZ	-0.092 (-1.32)	-0.010 (-1.46)	-0.191 (-2.70)***	-0.115 (-1.71)*
DISCOM	-0.499 (-2.90)***	-0.515 (-2.99)***	-0.651 (-3.88)***	-0.588 (-3.54)***
RISCOM	0.279 (1.41)	0.262 (1.30)	0.252 (1.31)	0.213 (1.07)
CSRCOM	0.277 (1.88)*	0.247 (1.64)	0.291 (2.01)**	0.290 (1.98)**
EXTAUD	0.673 (1.83)*	0.722 (1.96)**	0.600 (1.65)*	0.594 (1.65)*
Reputation Mgt.				
LnOTHCSRD	0.681 (6.66)***	0.673 (6.80)***	0.659 (6.99)***	0.660 (6.82)***
CSRNews	0.066 (1.58)	0.063 (1.53)	0.068 (1.61)	0.059 (1.39)
R & D	0.001 (3.357)***	0.001 (3.83)***	0.001 (3.20)***	0.001 (3.22)***
Firm-Specific Var.				
Size: LnTURN†	0.098 (1.20)			
LnMKTCAP†			0.081 (1.32)	0.104 (1.74)*
LnTOTASS†		0.138 (1.89)*		
Profitability: ROE		0.003 (0.90)	0.002 (0.56)	0.001 (0.41)
ROA	0.001 (0.24)			
LEV	-0.003 (-0.81)	-0.004 (-1.14)	-0.004 (-1.19)	-0.005 (-1.38)
AGE	0.006 (0.81)	0.006 (0.80)	0.007 (0.97)	0.008 (1.09)
R^2: Within =	**0.394**	**0.404**	**0.405**	**0.405**
Between =	**0.456**	**0.481**	**0.510**	**0.459**
Overall =	**0.418**	**0.433**	**0.450**	**0.427**
χ^2 =	**351.54*** **	**381.38*** **	**400.71*** **	**353.46*** **
N =	**798**	**798**	**798**	**798**

**Significant at 1% = ($p \leq 0.01$), **Significant at 5% = ($p \leq 0.05$), *Significant at 10% = ($p \leq 0.10$).
† Log transformed variables.

However, the introduction of audit committee activities into the models seems to affect some CG variables like BODMET, RISCOM, EXTAUD and CSRCOM. Consequently, these variables could no longer maintain their previous significance levels, while AUDMET was significant at 1% level in Models1, 2 & 4 and 5% in Model 3. For instance BODMET and RISCOM were not significant at all in all four models, while

EXTAUD and CSRCOM were inconsistent. The only plausible explanation from the agency theory perspective may be that additional governance mechanisms are either substitutive or complementary (Jensen and Meckling, 1976). According to agency theory more monitoring mechanism are complementary if it brings about more disclosures and substitutive otherwise (Jensen and Meckling, 1976; Vafeas, 1999; Ho and Wong, 2001). This goes to explain why the introduction of audit committee activities rendered other governance variables useless in the models.

The implication is that the presence or activities of audit committees are substitutive to other CG controls like; board meeting frequency, size and compositions, risk committee, CSR committee and even employing Big4 audit firms in some cases (Vafeas, 1999; Ho & Wong, 2001). Arguably, however, the result could be interpreted to suggest that companies with active audit committees might not be bothered to establish a risk or CSR committee. Similarly, the activities of the board in such companies appeared to be channelled elsewhere rather than on CCI and disclosures.

6.6.3 Alternative methods of estimation

Table 6.15 presents the comparison of the results from pooled OLS regression with that of GLS-RE regression results. The OLS estimations compared favourably with the findings of other studies like Patten (1991 & 1992); Hackston and Milne (1996); Adams *et al.* (1998); Ho and Wong (2001); Campbell *et al.* (2006) and similar studies that used turnover as proxy for company size. Turnover was significant at 1% level, while ROE and LEV were marginally significant. However when compared to the GLS-RE regression results, we could see at a glance that some of the estimations are not consistent. For instance while BODCOMP maintained a strong positive relationship with LnVolCCID using GLS-RE estimation, the sign of the relationship turned negative with low coefficients when OLS was used. Again while, BODMET and EXTAUD were not significant at all with OLS, they were significant with GLS-RE. Also while BODSIZ, RISCOM, CSRCOM and CSRNews were highly significant at 1% level with OLS, BODSIZ was not significant with GLS-RE, while others were only marginally significant.

Table 6. 15: Comparison with results from Pooled OLS Regression

Models	OLS		GLS-RE		OLS	GLS-RE
	Main Model (With BODSIZ)	**Main Model (Without BODSIZ)**	**Main Model (With BODSIZ)**	**Main Model (Without BODSIZ)**	**With additional variables**	**With additional variables**
Variables	**Coeff (t-stat)**	**Coeff (t-stat)**	**Coeff (t-stat)**	**Coeff (t-stat)**	**Coeff (t-stat)**	**Coeff (t-stat)**
Constant	-3.072 (-2.15)**	-2.549 (-1.77)*	-3.405 (-2.62)***	-3.248 (-2.55)**	-2.502 (-1.73)*	-3.438 (-2.63)***
PROFILE	0.910 (5.86)***	0.918 (5.82)***	0.948 (3.21)***	0.952 (3.09)***	0.906 (5.83)***	0.950 (3.13)***
COMNEWS	-0.139 (-0.86)	-0.131 (-0.80)	-0.144 (-1.05)	-0.145 (-1.07)	-0.091 (-0.55)	-0.090 (-0.65)
Corp. Gov. Var.						
BODMET	0.038 (1.58)	0.023 (0.98)	0.050 (1.90)*	0.048 (1.84)*	0.012 (0.49)	0.035 (1.33)
BODCOMP	-0.130 (-0.26)	-0.068 (-0.13)	0.433 (0.70)	0.484 (0.78)	-0.119 (-0.22)	0.360 (0.57)
BODSIZ	0.124 (3.97)***		0.040 (1.07)			
AUDMET					0.206 (3.25)***	0.202 (2.98)***
AUDSIZ					-0.160 (-2.48)**	-0.097 (-1.39)
DISCOM†	-0.312 (-2.07)**	-0.183 (-1.23)	-0.382 (-2.31)**	-0.364 (-2.25)**	-0.305 (-1.98)**	-0.500 (-2.90)***
RISCOM†	0.407 (3.07)***	0.344 (2.55)**	0.374 (1.93)*	0.345 (1.76)*	0.237 (1.72)*	0.290 (1.47)
CSRCOM†	0.329 (2.69)***	0.361 (2.93)***	0.278 (1.85)*	0.280 (1.85)*	0.359 (2.96)***	0.237 (1.57)**
EXTAUD†	0.148 (0.41)	0.077 (0.22)	0.808 (2.14)**	0.780 (2.15)**	0.010 (0.03)	0.711 (1.92)*
Reputation Mgt.						
Ln-OTHCSRD	0.769 (8.57)***	0.768 (8.23)***	0.702 (6.97)***	0.698 (6.84)***	0.766 (8.29)***	0.677 (6.73)***
CSRNews	0.127 (2.89)***	0.128 (2.91)***	0.082 (1.93)*	0.079 (1.87)*	0.104 (2.36)**	0.067 (1.60)
R & D	0.001 (2.34)**	0.001 (1.90)*	0.001 (3.90)***	0.001 (3.91)***	0.001 (1.60)	0.001 (3.76)***
Firm-Specific Var.						
Size: LnTURN	-0.005 (-0.10)	0.125 (2.59)***	0.066 (0.82)	0.111 (1.38)	0.116 (2.36)**	0.110 (1.37)
Profitability: ROE	0.008 (2.02)**	0.006 (1.67)*	0.003 (0.93)	0.003 (0.87)	0.006 (1.70)*	0.002 (0.67)
LEV	-0.005 (-1.67)*	-0.005 (-1.88)*	-0.004 (-0.97)	-0.004 (-1.02)	-0.004 (-1.43)	-0.003 (-0.92)
AGE	0.002 (0.51)	0.000(0.06)	0.008 (1.07)	0.008 (1.05)	0.001 (0.22)	0.007 (0.79)
R-sqrd =	**0.448**	**0.435**	**0.424**	**0.415**	**0.449**	**0.428**
F-Stat **=**	**32.17*****	**31.43*****			**30.02*****	
χ^2-Stat **=**			**364.05*****	**354.55*****	**0.437**	**382.49*****
N =	**798**	**798**	**798**	**798**	**798**	**798**

**Significant at 1% = (p ≤ 0.01), **Significant at 5% = (p ≤ 0.05), *Significant at 10% = (p ≤ 0.10). †Dichotomous variables with 1 signifying presence of variable in sampled companies and 0 otherwise.

These are all indications of the fact that the OLS estimates are inflated by unobserved heterogeneity. Moreover as argued earlier in this chapter (sections 6.3.1 and 6.3.2) the OLS estimates cannot be relied upon since the datasets are of a panel nature, some of the assumptions that make OLS BLUE cannot hold. This suggests that any estimate obtained using OLS with such datasets will of course violate assumptions 2, 4, and 5 hence OLS will no longer be BLUE because the results will suffer from heteroskedasticity, serial correlation in the errors and unobserved heterogeneity biases and therefore be invalid (Baum, 2006; Greene, 2008; Wooldridge, 2009). GLS-RE has been specifically designed to control for unobserved heterogeneity bias and would always yield estimates that are BLUE even with the presence of either heteroskedasticity or serial correlation in the errors (Halaby, 2004). Against this background therefore the researcher is confident that the estimates obtained with the GLS-RE are not only unbiased but are consistent estimations of the determinants of community disclosure giving a cross-sectional/ longitudinal setting.

6.7 Chapter Summary

Five main hypotheses were tested in the null form in this chapter. The results from the GLS-RE regression failed to reject two of the hypotheses, while three were rejected (see Table 6.16 below). The hypotheses were used to examine the motivation for CCID in the annual reports of 73 sampled companies from the FTSE 350 and covered an eleven year period from 1999 to 2009. The study found CCID measured by extent of disclosure in annual reports as having a strong positive association with companies having high public profile. This is indicative of the fact that corporations susceptible to criticism tend to disclose more community information than those less susceptible. However the study found no significant support for CCID/community expectation relationship thus offering a partial support for legitimacy-theory-based argument. Nevertheless, the study found some support for agency-theory-based argument. CCID was found to respond to the institution of monitoring mechanisms, such as employing the services of Big 4 audit firms, establishing standing committees such as disclosure committees, risk committees and CSR committees to complement the monitoring task of the board of directors.

Table 6. 16: List of Hypotheses

Hypotheses	Statement of hypotheses in the null form	Rejected?	Relationship with CCID
H1	There is no statistical relationship between volume of CCID (VOLCCID) and Corporate Public Profile (CPP).	Yes	Supported
H2	There is no statistical relationship between Volume of CCID (VOLCCID) and community expectation measured by media coverage on community issues.	No	Not supported
H3a	There are no statistical relationship between volume of CCID and **Board activities** measured by; a) Frequency of Board Meetings b) Board Composition, c) Board size	 Yes(at 10% level) No Yes	 Weak support
H3b	There are no statistical relationship between volume of CCID and **Board Standing Committees** measured by; a) Disclosure Committee. b) Risk Committee. c) CSR Committee.	 Yes Yes(at 10% level) Yes	 Supported
H3c	There is no statistical relationship between volume of CCID and **External Auditor**	Yes	Supported
H3d	There is no statistical relationship between volume of CCID and **Audit committee** measured by: a) Audit committee size and, b) Frequency of meetings	 No Yes	 Not supported Supported
H4	The volume of CCID (VOLCCID) has no statistical relationship with reputation management measured by; a) Other CSRD b) CSR News c) Research and Development expenditures.	 Yes Yes(at 10% level) Yes	 Supported
H5	The volume of CCID (VOLCCID) has no statistical relationship with firm specific characteristics of corporations measured by Company's size, Profitability, Leverage and Listing age.	No	Not supported

Further analysis however revealed that the existence of audit committee played a substitutive role to some monitoring devices such as establishing risk committee, employing Big 4 auditors and some board activities. Furthermore reputation enhancement seems to be another motivation for community disclosure as an association was found between measures of reputation management and CCID. The study however found no support for the effect of firm specific characteristics on CCID. This might be interpreted to mean that community expectation as measured by media coverage, company's size, age; profitability level and leverage level are all of little relevance when it comes to disclosing community involvement information in annual reports. Rather susceptibility to criticism and reputation management seems the main motivation for CCID in annual reports.

This finding is very important as it brings out what appears to be the real motivation behind disclosing this specific information and forms the impetus for the next two chapters. The researcher argues that concluding on reputation enhancement and susceptibility to criticism as the main motivation for CCID will be spurious without first considering the value relevance and the reality of this piece of information to the investor-stakeholders group. One would have thought CCID should align with community expectation, in line with the tenets of legitimacy and stakeholder theories, since corporations operate within these communities and the community-stakeholders group is the supposed beneficiary of the corporate gestures. Nevertheless since this is not the case, one may assume tentatively, that the investor-stakeholders group is the targeted audience for this information, more so when the disclosure is within the annual report which is the main medium of communicating with this group of stakeholders (investors). This line of argument forms the premise for the next research question, which is explored in the next chapter.

Chapter 7: The Value Relevance of Community Disclosure

7.1 Chapter Overview

This chapter focuses on answering the second main research question of this thesis, which explores the value relevance/information content of CCID in annual reports. In the previous chapter, the study revealed that factors other than community expectation might be responsible for CCID. The study established the fact that reputation management and susceptibility to criticism have great influence on the disclosure of CCI in annual reports, which is consistent with Campbell *et al.* (2006) and other CSRD studies (Tom, 2002; Bebbington *et al.*, 2008a&b). The question then is; if the community-stakeholder group, the supposed beneficiaries of CCI, have little or no influence on its disclosure, then which stakeholder group is the corporation managing its reputation for? Or who are the critics to whom the corporation is responding, by disclosing CCI in annual reports? Wood and Jones (1995) argued that the missing link in understanding the CSRD phenomena from a stakeholder's perspective is to identify the particular stakeholder group involved. Against this backdrop therefore, this chapter explores the signalling, agency and stakeholder theories in providing answers to this research question.

The researcher argues that since negative public criticism will ultimately lead to loss of reputation and invariably loss of market share and negative impact on firm value, management is aware that an observant risk-averse investor-stakeholder will withdraw his investments if the situation persists (Graves & Waddock, 1994; Chan and Milne, 1999). This, according to agency theory, is referred to as the agency cost of equity (Jensen & Meckling, 1976)[28]. To reduce the agency cost of equity therefore, and thus increase firm value, management require the production of a quality market-signal (Spence, 2002). Signalling theory posits that a signal is a perceivable action, which is intended to indicate a quality not otherwise perceivable about the signaller [29] (Guilford and Dawkins, 1995; Maynard-Smith & Harper, 2003).

[28] This is discussed in detail in Chapters 3, Sub-section 3.2.3.
[29] See detailed discussion on signalling theory in Chapters 3, Sub-section 3.2.4 and Chapter 4, Section 4.3

Against this background, since the annual report is traditionally aimed at the investor-stakeholder group, this thesis argues that the investor-stakeholder group remains the target for CCID. Consequently, the researcher argue that CCID might be a signal employed by management to either educate investors on their community activities, and reduce information asymmetry, or to signal the quality or competence in handling global and community issues and thus be portrayed as a good corporate citizen to the market/investors. Therefore it is assumed that as CCID is disclosed in annual reports it possesses certain information which should have an effect on market performance, *ceteris paribus*. Based on agency and signalling theory therefore, a positive relationship is expected between CCID and market performance, thus leading to the main hypothesis formulated in Chapter 4, section 4.3, which is restated below. The justification for this hypothesis was discussed in chapter 4, section 4.3.

H6: ***Stock returns have no statistical relationship with both the quality; measured by TQS and the volume of CCID (VOLCCID) ceteris paribus.***

However, for a robust analysis, the researcher split **H6** into four sub-hypotheses in order to examine 2 measures of CCID – the volume and the quality – and also to check the incremental effect of these variables on stock return. In other words **H6** may be restated as follows;

H6a: *Higher quality of community involvement disclosures leads to higher market performance ceteris paribus.*

H6b: *Higher volume of community involvement disclosures leads to higher market performance ceteris paribus.*

H6c: *Improvement in the quality of community involvement disclosures leads to higher market performance ceteris paribus.*

H6d: *Improvement in the volume of community involvement disclosures leads to higher market performance ceteris paribus.*

The rest of the chapter is organised as follows: the next section discusses the data and models of analyses while section 7.3 presents the data analyses. Section 7.4 presents the regression results, while further analysis and robustness check is presented in section 7.5. Section 7.6 summarizes the chapter.

7.2 Data and Method

7.2.1 Data

As discussed in Chapter 5, sub-section 5.4.1.6 the dataset consists of 73 companies spread across the ICB ten industrial classifications and covers an eleven year period from 1999 to 2009 inclusive. All data collected were of a panel nature that is both cross-sectional and longitudinal. However only ten years of data could be achieved for this part of the thesis as only ten years of stock returns could be calculated (see discussion below), thus reducing the sample size to 728 observations from 798 used in Chapter 6. However, as stated in Chapter 6, section 6.3, the analysis will be performed using RE estimator with GLS regression. The RE-GLS regression method has been discussed in detail in Chapter 6, Section 6.3.3.

7.2.2 Market Performance

Since the hypotheses above are basically testing associations between stock returns and CCID, only annual stock returns data are used for the investigation (Nichols & Wahlen, 2004; Murray et al., 2006), more so CCID data can only be obtained on an annual basis. Therefore market performance was measured by calculating the annual stock returns for each sampled company, using the annual Return Index (RI) obtained from the Thomson Reuters DataStream for each company for period covering 1999 to 2009. RI is defined by the DataStream as the theoretical growth in the value of a shareholding which is deemed to return dividend that are re-invested by buying additional shares of the stock at the current share price applicable. Although eleven years of data covering 1999 to 2009 were collected for the investigation, this could only allow for ten years of study as only ten years of Share Returns could be calculated using the following equation adopted from Murray *et al* (2006, p235):

$$Returns_{it} = Ln \frac{RI_{it}}{RI_{it-1}} \text{ -- (Eq. 10)}$$

Where;

$Returns_{i,t}$ = Annual Returns on shares by company *i* in the year *t*

$RI_{i,t}$ = Total Return Index of company *i* at the end of year *t*

$RI_{i,t-1}$ = Total Return Index of company *i* at the start of the year

Ln = Natural logarithm. The logarithmic calculation of returns is particularly suitable to the calculation of annual stock returns since all returns were assumed reinvested hence stock returns is calculated as a continuously compounded return.

Therefore a major criterion for inclusion in the sample is the availability of the total return index data for each company from 1999 to 2009 inclusive.

7.2.3 Community Involvement Disclosure

To investigate the CCID/stock returns nexus, annual stock return (Returns) is the dependent variable, while CCID is the main independent variable. CCID is measured in two ways using both the volume and the quality of the disclosures; this was to capture its signalling effect in the annual reports. Signalling theory posits that, a signal will only receive the expected feedback, when the nature (quality) on the one hand and the intensity of the signal on the other hand, is capable of being adjusted or improved upon over time (Spence, 1974; Herbig and Milewicz, 1996). In this thesis the quality of CCID disclosed by sampled companies was measured by variable TQS (Total Quality Score) which was obtained based on a four-element index. The index which was adapted from Walden and Schwartz (1997) and Freedman and Stagliano (1992 & 2008) was extensively discussed in Chapter 5, sub-section 5.4.2.4, while the unit of measurements and the techniques of data capture for both the volume and quality of CCID have been discussed in Chapter 5, Sub-sections 5.4.2.3 to 5.4.2.6.

7.2.4 Control Variables

Bearing in mind the fact that other numerous annual report information and announcements may also affect stock returns, the researcher controlled for some variables that have been documented in literature as having some relationship with stock returns: profitability – measured by Net Income Margin (NIM) and Earnings per Share (EPS) (Ball & Brown, 1968); Investors evaluation ratio – measured by Market-to-Book Ratio (MTB) (Fama & French, 1992; Firth *et al.*, 2007); Leverage Level – measured by Total Debt to Total Asset (Fama & French, 1992); and Size – measured by Turnover (Patten & Nance, 1998; Nelling & Webb, 2009).

Price-Earnings Ratio (P/E ratio) was not included in the model even though Ball & Brown (1968) found it has strong explanatory power for stock returns. This is because a later study by Fama & French (1992) found that the combination of size and MTB provided stronger explanatory power and indeed weakens the explanatory power of the P/E ratio if included in the same model (Fama & French, 1992:445). Furthermore the researcher is aware that there could be other unobservable variables, but is sure that this will be taken care of by the panel nature of the datasets and the use of advanced analytical techniques in analysing the data.[30] Data for the control variables were collected from the DataStream with their mnemonic code in parenthesis as follows:

- Earnings per share (WC05201)
- Net Income Margin (WC08366)
- Market-to-Book Ratio (WC09304)
- Leverage Level (WC08221)
- Turnover (WC01001)

See Chapter 6, Table 6.1 for definitions

7.2.5 Model specification

The models of analyses for this part of the thesis are specified as follows:

Model1: With TQS as key independent variables:

$$\text{Returns}_{it} = \alpha_0 + \beta_1 \text{TQS}_{it} + \beta_2 \text{TQS}_{it-1} + \beta_3 \Delta\text{TQS}_{it} + \beta_4 \text{EPS}_{it} + \beta_5 \text{NIM}_{it} + \beta_6 \text{MTB}_{it} + \beta_7 \text{LEV}_{it} + \beta_8 \text{LnTURN}_{it} + \epsilon_{it} \quad \text{(Eq.11)}$$

Model2: With LnVolCCID as key independent variables:

$$\text{Returns}_{it} = \alpha_0 + \beta_1 \text{LnVolCCID}_{it} + \beta_2 \text{LnVolCCID}_{it-1} + \beta_3 \Delta\text{VolCCID}_{it} + \beta_4 \text{EPS}_{it} + \beta_5 \text{NIM}_{it} + \beta_6 \text{MTB}_{it} + \beta_7 \text{LEV}_{it} + \beta_8 \text{LnTURN}_{it} + \epsilon_{it} \quad \text{(Eq.12)}$$

Where;

α,β i and t are as defined in Chapter 6, section 6.3,

$t-1$ = One-year time lag (i.e. previous year data proxy for previous year disclosure)

Δ = Changes in disclosures.

[30] See Chapter 6, section 6.3.3 for detailed discussion on regression methods for analysing panel dataset.

The definitions for some of the variables in models 1 and 2 above, (LEV, LnTURN, and LnVolCCID) are summarized in Chapter 6, Table 6.1, while others are summarized in Table 7.1 below.

Table 7. 1: Definition of variables

Variables*	Definitions
Returns	Annual returns on common stock– see definition and calculation in sub-section 7.2.2 above.
TQS	Total Quality Score obtained by allocating points to specific criteria (see Chapter5, Sub-section 5.4.2.4).
EPS	Reported Earnings per share for each financial year. It represents the earnings for the 12 months ended the last calendar quarter of the fiscal year. It's obtained from DataStream.
NIM	Net Income before Preferred Dividends, divided by Net Sales or Revenues multiplied by 100. Obtained from DataStream.
MTB	Market to Book Value Ratio compares a stock's market value with its book value = Market Price-Year End divided by Book Value Per Share. It is Investors' evaluation technique.

*All data were sourced from company's annual reports and the Thompson Reuter DataStream

One-year lag variable – proxy for previous year community disclosure – was included in the model in order to establish whether or not it could also have an influence on stock returns. Although the Efficient Market Hypothesis (EMH) of Fama, (1970) posits that stock prices, at any point in time, would immediately adjust and fully reflect all available information in the market, the plethora of literature on the EMH has focused more on earnings numbers and other financial data (see for example Gonedes, 1973; Bernard and Stober, 1989; Sharma and Iselin, 2003; Nichols & Wahlen, 2004; Sponholtz, 2008). Only a few studies have investigated market reactions to social disclosures (Andersen and Frankle, 1980; Freedman and Jaggi, 1982, Ingram and Frazier, 1983; Murray *et al.*, 2006; Becchetti *et al.*, 2007). Nevertheless, the researcher expects that based on the EMH argument, whatever information contained in previous year community disclosure should have been absorbed by the market in the previous year. In effect only current year disclosure should affect stock returns significantly; if at all any relationship do exists between stock returns and community disclosures.

Annual incremental changes in disclosure were calculated using the following equation

$$\Delta TQS_{i,t} = \frac{TQS_{i,t} - TQS_{i,t-1}}{TQS_{i,(t-1)}} \text{ -- (Eq. 13)}$$

Where;

$\Delta TQS_{i,t}$ = Changes in Total Quality Score of company *i* in the year *t*

$TQS_{i,t}$ = Total Quality Score of company *i* at the end of year *t*

$TQS_{i,(t-1)}$ = Total Quality Score of company *i* at the start of the year

The equation was also applied to VolCCID in order to calculate changes in disclosure level over the period. All changes were calculated annually. However, as with the calculation of stock returns in section 7.2.2 above only ten years of disclosures could be calculated using the above equation and only ten years of time lagged values could be achieved for 1999 to 2009 data.

7.3 Data Analysis

7.3.1 Descriptive Statistics[31]

Table 7.2 presents the descriptive statistics for Returns, TQS, EPS, NIM and MTB while the descriptive statistics for VolCCID, Leverage, and Turnover were discussed in Chapter 6, section 6.4.1. Average stock returns for all companies in the sample stood at 16.6% while a typical company in the sample has an average EPS of 0.26 with some companies having as low as -0.55 and some as high as 0.99. Net income margin ranges between -20.87 and 31.1 with the average in the region of 8.43. Similarly market to book ratio ranges between -2.04 and 7.5 with the average in the region of 2.98. Average quality score for all company in the sample is 3.87 with some company scoring 0 while some score as high as ten.

[31] See Chapter 6, section 6.4.1 on the meaning and importance of descriptive statistics.

Table 7. 2: Descriptive Statistic for DV and IVs

Variables	Mean	Std Dev	Min	Max	Skewness	Kurtosis
Returns	0.166	0.707	-1.00	11.852	8.146	117.656
TQS	3.87	2.261	0	10	-0.262	2.299
EPS	0.26	0.340	-0.55	0.99	0.299	3.336
NIM	8.43	11.761	-20.87	31.1	-0.213	3.490
MTB	2.98	2.092	-2.04	7.5	0.848	3.14

However the skewness and kurtosis statistics on the last two columns of the table show that all variables fell within the threshold of zero and three for skewness and kurtosis respectively without any adjustments except for the Returns variable. This implies that the dataset for stock returns contains some unusual observations known as outliers[32]. Since the presence of outliers in datasets may lead to the violation of some of the assumptions stated in sub-section 6.3.1 of Chapter 6, the researcher took out all cases of extreme outliers and also performed various normality checks on the datasets.

7.3.2 Normality Check

Checks conducted included the Box plot of stock returns in order to detect and remove outliers (Figure 7.1) and the Jarque-Bera (Skewness/Kurtosis) test for checking normality of residuals, the same test conducted in Chapter 6. After taking out all cases of extreme outliers from the stock returns dataset, which further reduced the sample size to 722, the researcher predicted the studentized residuals (*r*) with the *predict* command in STATA, and plotted a histogram of *r* for visual analysis. This was followed up with the Jarque-Bera (Skewness/Kurtosis) test. The histogram in Figure 7.2 shows *r* as looking normally distributed, while the test statistics in Table 7.3 also failed to reject the null hypothesis that *r* is normally distributed as it shows *p* values greater than 0.05.

[32] See detailed discussion on Skewness, Kurtosis and outliers in Chapter 6, section 6.4.1

Figure 7. 1: Box Plots of Stock Returns Datasets

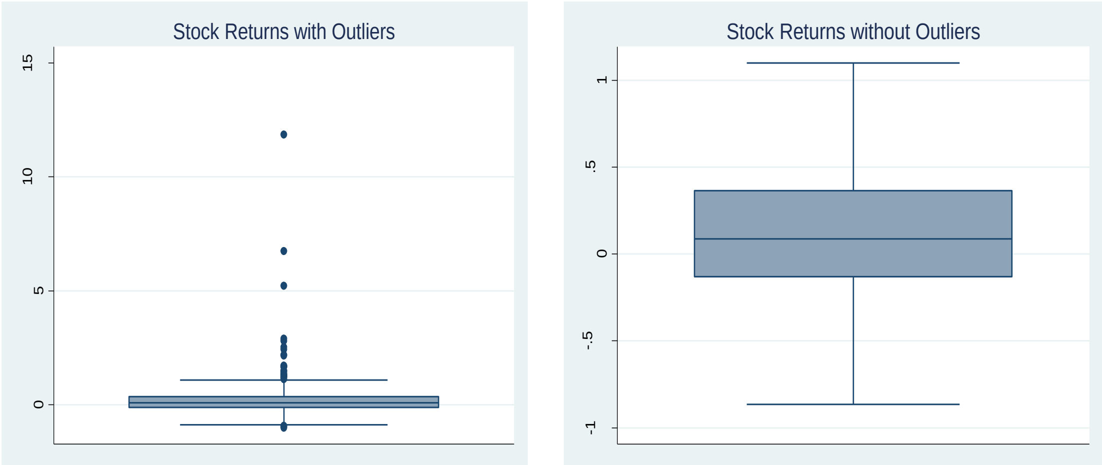


Figure 7. 2: Histogram of Residuals

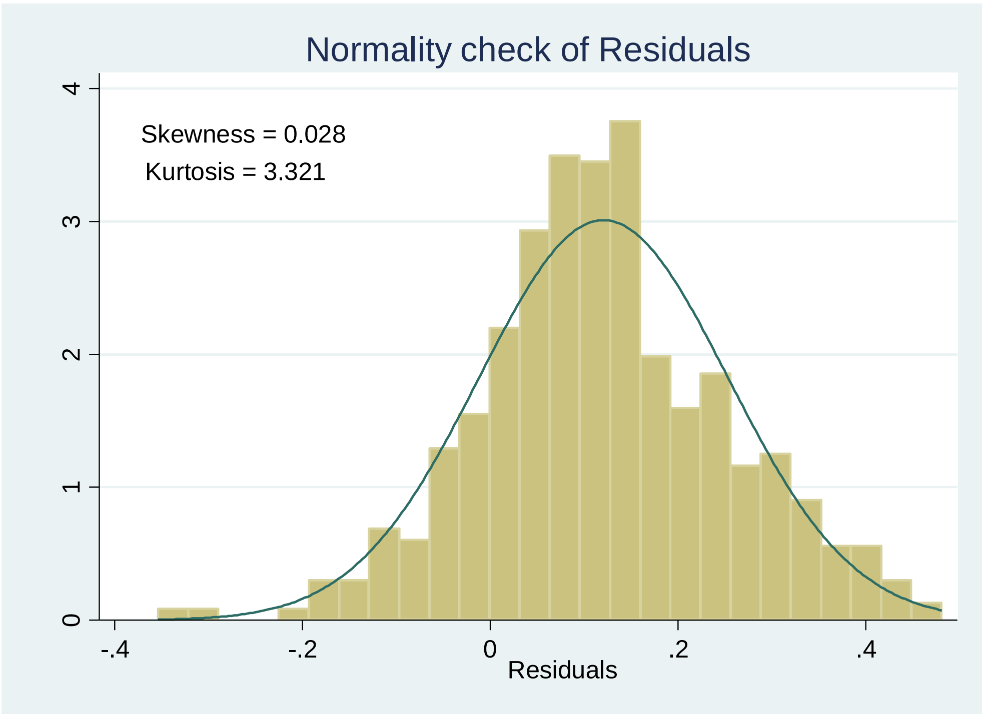


Table 7. 3: Normality Tests of Residuals.

sktest r

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	joint Prob>chi2
r	722	0.754	0.092	2.93	0.2311

7.3.3 Correlation Analysis

Table 7.4 presents the pairwise correlation between Returns and the two measures of community disclosures TQS and LnVolCCID. The results show both the current and prior year proxy for both measures of community disclosures as significantly correlated to Returns at 1% level.

Table 7. 4: Pairwise correlation of Returns with Key IVs

Variables	Returns	TQS	TQS(t-1)	ΔTQS	LnVolCCID	LnVolCCID(t-1)
TQS	0.191***					
TQS(t-1)	0.210***	0.719				
ΔTQS	-0.008	0.288	-0.278			
LnVolCCID	0.149***	0.835	0.654	0.124		
LnVolCCID(t-1)	0.178***	0.676	0.857	-0.056	0.772	
ΔVolCCID	-0.010	0.212	-0.169	0.659	0.185	-0.086

Table 7.5 presents the correlation matrix of other independent variables when TQS is the key independent variable, while Table 7.6 presents the correlation matrix when LnVolCCID is the key independent variable. The tables recorded low correlation between the variables except for TQS and LnVolCCID that have slightly high correlation of (0.712) and (0.766) with their 1-year lag values respectively. Although this is expected, the researcher computed the variance inflation factor (VIF) [33], with every regression in order to check for the existence and/or severity of multicollinearity and correct the same where necessary.

Table 7. 5: Correlation Matrix when TQS is Key IV

Variables	TQS	TQS(t-1)	ΔTQS	EPS	NIM	MTB	LEV
TQS	1.000						
TQS(t-1)	0.712	1.000					
ΔTQS	0.292	-0.282	1.000				
EPS	0.182	0.217	-0.021	1.000			
NIM	0.106	0.118	-0.025	0.456	1.000		
MTB	0.034	0.048	-0.010	0.168	0.065	1.000	
LEV	0.260	0.251	0.009	0.062	0.053	0.069	1.000
Ln-TURN	0.455	0.479	-0.028	0.280	-0.063	0.016	0.366

[33] See Section 6.4.4, Chapter 6, for a discussion on VIF.

Table 7. 6: Correlation Matrix when LnVolCCID is Key IV

City or Town	LnVolCCID	LnVolCCID(t-1)	ΔVolCCID	EPS	NIM	MTB	LEV
LnVolCCID	1.000						
VolCCID (t-1)	0.766	1.000					
ΔVolCCID	0.187	-0.091	1.000				
EPS	0.199	0.226	-0.036	1.000			
NIM	0.119	0.097	0.031	0.456	1.000		
MTB	-0.021	-0.011	0.012	0.168	0.065	1.000	
LEV	0.171	0.190	-0.022	0.062	0.053	0.069	1.000
LnTURN	0.403	0.442	-0.042	0.280	-0.063	0.016	0.366

7.4 Regression Results and Discussions

The regression results are presented in Table 7.7; Panels A & B. Panel B differs from Panel A only in the measurement of community disclosures used. While TQS is the key independent variable for model 1 in the Panel A, LnVolCCID is the key independent variable for model 2 in Panel B. The control variables are the same in both models. Nevertheless, the results obtained from the two models are very similar with overall R^2 of 0.450 for Panel A and 0.458 for Panel B. The significant variables in Panel A remained significant and maintained their significance level in Panel B, while the insignificant variables remained insignificant. Similarly, the within and between group R^2 for Panel A are 0.169 and 0.185 and for Panel B are 0.165 and 0.182 respectively. Thus both models are able to provide an overall explanation of approximately 45% for variations in the annual stock returns (Returns) of sampled companies, and at the same time, the models could explain approximately 17% of variation within entities from one year to another and about 18% of variations between one entity and another entity. The χ^2-statistics for both models are significant at 1% level, thus indicating that the models are well specified and able to explain the relationship between Returns and the explanatory variables. The results also showed *rho* of 0.95, indicating that about 95% of variations in Returns may not be due to differences across entities, which confirms why only 18% of variations between one entity and another could be explained by the models.

Table 7. 7: RE-GLS Regression Results

Panel A: TQS is the key Independent Variables

Variables	Coefficient	Robust Std Error	z-stat	P-value	VIF
Constant	3.229	0.568	5.68	0.000***	
TQS	0.050	0.019	2.60	0.009***	4.47
$TQS_{(t-1)}$	-0.004	0.020	-0.20	0.843	4.48
ΔTQS	-0.056	0.072	-0.77	0.440	2.34
EPS	0.280	0.101	2.76	0.006***	1.50
NIM	0.006	0.003	2.07	0.038**	1.38
MTB	0.200	0.017	11.98	0.000***	1.04
LEV	-0.001	0.002	-0.42	0.672	1.19
LnTURN	0.463	0.068	6.76	0.000***	1.66
R^2:Within =	**0.450**		**χ^2-stat =**	**374.58*** **	
Between =	**0.169**		**Rho =**	**0.952**	
Overall =	**0.185**		**N =**	**722**	

Panel B: LnVolCCID is the key Independent Variables

Variables	Coefficient	Robust Std Error	z-stat	P-value	VIF
Constant	3.313	0.553	5.99	0.000***	
Ln-VOLCCID	0.057	0.016	3.61	0.000***	2.95
VOLCCID (t-1)	0.005	0.016	0.33	0.740	2.92
ΔVOLCCID	-0.025	0.027	-0.91	0.364	1.21
EPS	0.269	0.102	2.64	0.008***	1.50
NIM	0.006	0.003	2.07	0.038**	1.37
MTB	0.205	0.017	12.26	0.000***	1.04
LEV	-0.001	0.002	-0.25	0.805	1.18
LNTURN	0.430	0.068	6.34	0.000***	1.58
R^2:Within =	**0.458**		**χ^2-stat =**	**398.42*** **	
Between =	**0.165**		**Rho =**	**0.952**	
Overall =	**0.182**		**N =**	**722**	

***Significant at 1% = ($p \leq 0.01$), **Significant at 5% = ($p \leq 0.05$), *Significant at 10% = ($p \leq 0.10$).

The results show TQS and LnVolCCID as having positively significant relationship with Returns at 1% level with coefficients 0.050 and 0.057 respectively, despite controlling for other extraneous variables. On the other hand previous year disclosures as well as changes in disclosure have no statistically significant relationship with Returns. Nevertheless, as expected and consistent with previous studies (Ball & Brown, 1968; Fama & French, 1992; Patten & Nance, 1998; Firth *et al.*, 2007; Nelling & Webb, 2009), all the control variables were significant except for Leverage. However, as in the previous chapter, before placing total reliance on these results in testing our hypotheses, the researcher conducted further post-estimation test to establish the validity of the results by checking the suitability of the RE-GLS estimator.

7.4.1 Checking the Efficiency of RE Estimator

To check the validity of the results, the researcher subjected the RE-GLS estimation method to the Breusch-Pagan LM test[34]. This was necessary to ensure that the RE-GLS estimation method is as efficient in performing the task with the variables in this chapter, as with Chapter 6. The result of the test is presented in Table 7.8 below. Similar to the result in Chapter 6, the Breusch-Pagan LM test was significant at ($p < 0.05$) and accordingly rejected the null hypothesis of no significant differences across entities thus favouring the RE model estimator. Nevertheless, as in the previous chapter all regressions were run with the robust standard error. This assures that the results obtained are free of bias and can be relied upon. Therefore the results of testing the various sub-hypotheses stated in section 7.1 above are discussed in subsequent sections.

Table 7. 8: Breusch & Pagan LM Specification test

```
Breusch and Pagan Lagrangian multiplier test for random effects

        Returns[Id,t] = Xb + u[Id] + e[Id,t]

        Estimated results:
                        |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                 Returns |   5.790145       2.406272
                       e |   .2200976       .4691456
                       u |   4.332273       2.081411

        Test:   Var(u) = 0
                              chi2(1) =   2636.29
                          Prob > chi2 =     0.0000
```

7.4.2 Market Performance vs. CCID

The results provided support for both hypotheses 6a and 6b. The market performance measured by annual stock returns, increases as current year data for both TQS and VolCCID increases. This may be interpreted to mean that investors are more concerned

[34] See detail discussion of the Breusch-Pagan LM test in Chapter 6, section 6.5.1.

about current year performance on community activity and may indeed be influenced by it in their decision to buy or not to buy more shares. To some extent the results supported the EMH[35] argument that the market reacts to all new publicly available information and that market prices fully reflect all such information (Fama, (1970). It also confirmed the fact that previous year community disclosures would have been absorbed by the market in the previous years and hence has little or no effect on the market in subsequent years. The findings are consistent with those of Belkaoui (1976); Preston (1978); Anderson and Frankle (1980); Becchetti *et al*. (2007). The insignificant leverage/returns relationship is also consistent with Graves & Waddock (1994); Waddock & Graves (1997a&b) and Nelling & Webb (2009), indicating that investors are risk-averse and will always prefer larger firms with strong social and financial performance. The inverse leverage/return relationship also supported Graves & Waddock's (1994) findings that risk-averse investors will prefer low leveraged firms.

7.4.3 Market Performance vs. Changes in CCID

The results does not seem to support hypotheses 6c and 6d, which could be an indication that, investors are basically satisfied with the fact that a company is socially responsible and that such information is made available in the annual reports. Whether or not such information increases in quantity or quality does not seem to be a matter for consideration by the investors.

7.5 Further Analysis and Robustness Check

7.5.1 Multi-collinearity Check

The VIF computed to check for multicollinearity, were below the thresholds of 10[36] for all of the variables of both models, thus ruling out the tendency of severe multi-collinearity in the research models. However, the researcher observed that the VIF computed for both the current and one-year lagged values of TQS are slightly high and though it is below the thresholds of 10, it calls for caution, since a degree of multi-collinearity may still occur with slightly high VIF (O'Brien, 2007) and this could affect significance levels of variables (Tabachnick and Fidell 2007).

[35] The researcher recognises the fact that a detailed test of the Efficient Market Hypothesis (EMH) would require an event study approach. However it is not the objective of this research to test the efficiency of the market in this thesis but rather to establish whether or not an association do exists between annual stock returns and CCID. However the findings in this chapter are sufficient justification that current year information is absorbed by the market which is consistent with studies such as Nelling & Webb (2009).
[36] See Chapter 6, Section 6.4.4 for discussions on VIF.

Therefore, the researcher considered it wise to carry out further analysis in order to ensure the robustness of the results. To do this the researcher re-specified Model 1 alternating TQS and TQS $_{(t-1)}$ as key independent variables in such a way as to avoid having the two variables in the same model. The results of the regressions are presented in Table 7.9 below;

Table 7. 9: Regression Results for Multi-collinearity checks

	Model(1a)		Model(1b)		
Variables	**Coefficient**	**z-stat**	**Coefficient**	**z-stat**	**VIF**
Constant	3.236	5.74***	3.219	5.60***	
TQS	0.047	3.25***			1.48
TQS$_{(t-1)}$			0.027	1.68*	1.49
ΔTQS	-0.044	-0.98	0.088	1.89*	1.14
EPS	0.278	2.73***	0.274	2.67***	1.49
NIM	0.006	2.08**	0.006	2.04**	1.38
MTB	0.200	11.98***	0.200	11.93***	1.04
LEV	-0.001	-0.42	-0.001	-0.48	1.19
LnTURN	0.462	6.91***	0.476	6.83***	1.63
R^2:Within =	**0.450**		**0.443**		
Between =	**0.169**		**0.171**		
Overall =	**0.185**		**0.186**		
χ^2-stat =	**374.14*** **		**334.09*** **		
N =	**716**		**716**		

***Significant at 1% = ($p \leq 0.01$), **Significant at 5% = ($p \leq 0.05$), *Significant at 10% = ($p \leq 0.10$).

The results presented in Table 7.9 are fairly similar to those of the main model except that TQS $_{(t-1)}$ and ΔTQS, with negative signs and insignificant p-values in Table 7.7 Panel A turned positive and became marginally significant at the 10% level. This could be an indication of a slight influence of multi-collinearity on the results of the main model. However O'Brien (2007) argued that the existence of a slight multi-collinearity does not affect the validity of the result as the estimates remains BLUE. In any case, a marginally significant relationship of 10% is an indication that if at all any relationship exists between previous year community disclosure and stock returns and changes that occurs in community disclosure in annual reports and market performance; such relationships are more likely to be due to chance. More importantly the current year TQS remains significant at 1% level.

7.6 Chapter Summary

This chapter focused on investigating the Community Involvement Disclosures/Stock Returns relationship in an attempt to examine the value relevance or information content of this piece of disclosure to the market. The main hypothesis, which was further split into four sub-hypotheses, was to establish any relationship whatsoever between market performance and community involvement disclosures. A summary of the four sub-hypotheses tested in this chapter is presented in Table 7.10 below.

Table 7. 10: List of Hypotheses Tested

Hypotheses	Statement of hypotheses	Supported?
6a	The higher the quality of community involvement disclosures in annual reports the higher the market performance *ceteris paribus*.	Yes
6b	The higher the volume of community involvement disclosures in annual reports the higher the market performance *ceteris paribus*.	Yes
6c	Improvement in the quality of community involvement disclosures leads to improvement in market performance *ceteris paribus*.	Yes (at 10% level)
6d	Improvement in the volume of community involvement disclosures leads to improvement in market performance *ceteris paribus*.	No

The study explored the relationship between community disclosure and market performance by investigating the linear relationship between annual stock returns and both the current and previous year community disclosure measured by both the quality score (TQS) and the volume of disclosure in annual reports (VolCCID). The study also explored the effect of changes in the quality and volume of community disclosures on Returns. The study found no significant association between Returns and past performance of community activity, while a positively significant association was found between Returns and current year data of community disclosures even after controlling for financial performance and other firm specific characteristics, thus supporting the efficient stock market hypothesis proposed by Fama (1970). The findings also suggested that community disclosures in annual reports possess certain information or signals that attract market reaction. It could also be interpreted to mean that the market also reacts to specific non-financial disclosures in annual reports in addition to financial disclosures predicted by positive accounting theory (Watts and Zimmerman, 1986). The finding is consistent with earlier studies like Belkaoui (1976); Preston (1978); Anderson & Frankle (1980) and a more recent study by Becchetti *et al* (2007). However when subjected to further sensitivity examination, the study found a weak support for past performance and incremental effect of the quality of CCID on stock returns.

These findings are quite significant when compared to the study in Chapter 6, sub-section 6.5.3. The findings define the salience accorded to the community-stakeholder group by management as that of the '*dependent*' group in the Mitchell *et al*, (1997) model (Figure 3.3 of Chapter 3). That is, they have the attributes of legitimacy and urgency but have no power to put forward their claims but rather depend on the dominant stakeholder group (the investors) to put their claims forward. Additionally, the study gives support not only to signalling theory but also to agency and stakeholder theory explanations in so far as the information represents a kind of market signal that may be employed by management to redress information asymmetry (agency theory) and at the same time manage the investor-stakeholders group (stakeholder theory).

Chapter 8: The Reality of Community Disclosure

8.1 Chapter Overview

The last two chapters explored extensively the motivation as well as the information content of CCID and found support for legitimacy, stakeholder, agency and signalling theories. The studies revealed that reputation enhancement was a key motivating factor. This was reflected in the fact that in addition to responding to measures of reputation management, companies with high public profile having an active audit committee and/or standing committees such as disclosure committee and audited by Big 4 audit firms are much more likely to disclose a higher volume of community information. Similarly while community-stakeholders concern was not a priority for managers to disclose community information in annual reports, investor-stakeholders concern was a major issue as stock returns responded significantly to CCID. It was also clear from the study in Chapter 7 that CCID possesses certain information that could attract market reaction. Consequently the researcher is interested in knowing if CCID in annual reports represent a true measure of community development especially when community expectation as measured by the news media appears not to be a motivating factor.

This chapter therefore focuses on answering the research question; *can CCID in annual reports be construed as a true measure of CCD?* To answer this research question, therefore, the study will be approached from two perspectives – quantitative and qualitative. The quantitative aspect has signalling theory as its theoretical framework while semiotics is the theoretical framework for the qualitative perspective. However while the quantitative perspective examined the reality of CCID from the point of view of its quality as a signal of CCD, the qualitative perspective viewed reality from the perspective of the audience at which the report is aimed. Consequently the relationship between the quality of CCID measured by variable TQS and the volume of CCID in annual reports was investigated using a panel study approach, while the texts of the narratives were semiotically analysed in order to uncover the true meaning of the texts. The rest of the chapter is structured as follows. The next section presents the quantitative approach to examining the reality of CCID while Section 8.3 presents the qualitative approach to investigating reality. Section 8.4 summarizes the findings and concludes the chapter.

8.2 Reality of Community Disclosure – Quantitative Perspective

Signalling theory as the theoretical foundation for this section has been extensively discussed in Chapters 3, section 3.2.4 and the justification for the hypothesis tested in this section has been discussed in detail in Chapter 4, section 4.4.1. The hypothesis is however restated below:

H7: ***The quality of CCID measured by TQS will increase significantly as the volume of CCID increases over time while we control for CG and firm-specific characteristics.***

8.2.1 Data and Model Specification

The researcher had earlier tested the above hypothesis using pilot study (2)[37] with 270 observations, taken from the top 100 companies for corporate responsibility (BITC, 2008). The study which, later culminates in a research paper, (Yekini and Jallow, 2012, Appendix 12) documented a partial relationship between TQS and VOLCCID, though only a few control variables were included in the model. Nevertheless the hypothesis is tested here with a wider sample of 798 observations, taken from 32 FTSE 350 sectors and covering 1999 to 2009, the same dataset as used in Chapter 6 of this thesis, except that TQS is the dependent variable and VolCCID is the key independent variable. In addition, more control variables are included in the current model in order to rule out any possibility of heterogeneity bias in the pilot study. Therefore, with signalling theory as the theoretical foundation, the model specification for this section is as follows:

$$\begin{aligned}\mathrm{TQS}_{it} = \; & \alpha_0 + \beta_1\mathrm{VolCCID}_{it} + \beta_2\mathrm{BODMET}_{it} + \beta_3\mathrm{BODSIZ}_{it} + \beta_4\mathrm{BODCOMP}_{it} + \beta_5\mathrm{AUDMET}_{it} + \\ & \beta_6\mathrm{AUDSIZ}_{it} + \beta_7\mathrm{DISCOM}_{it} + \beta_8\mathrm{RISCOM}_{it} + \beta_4\mathrm{CSRCOM}_{it} + \beta_{10}\mathrm{EXTAUD}_{it} + \\ & \beta_{11}\mathrm{ROE}_{it} + \beta_{12}\mathrm{ROA}_{it} + \beta_{13}\mathrm{LEV}_{it} + \beta_{14}\mathrm{LnTURN}_{it} + \beta_9\mathrm{LnMKTCAP}_{it} + \\ & \beta_{10}\mathrm{PROFILE}_{it} + \epsilon_{it}\text{--} \quad \text{(Eq.14)}\end{aligned}$$

The measurement of TQS and the techniques of data capture were discussed extensively in Chapter 5, sub-section 5.4.2.4 and 5.4.2.5 respectively. The definitions of all other variables in Equation 14 above and their sources are as presented in Tables 6.1 and 6.13 of Chapter 6.

[37] See Chapter 5, sub-section 5.4.1.6 for detailed discussion on Pilot Study (2).

8.2.2 Data Analysis

8.2.2.1 Descriptive Statistics

The descriptive statistics for variable TQS is presented in Table 8.1 while that of all the other independent variables are as discussed in Chapter 6, section 6.4.1. Table 8.1 reveals that a typical company in the sample has an average Total Quality Score (TQS) of 3.71 with companies in Technology having the lowest average score of 1.98 with a median score of 2 and companies in Financial having the highest average score of 4.7 with a median of 5. Also while some companies in the Consumer service industry was able to obtain points for all the criteria for measuring quality thus obtaining the highest quality score of 10, the highest quality score obtained in the Technology industry was 6. These statistics suggests that companies in certain industries such as Consumer goods, Consumer services and Utilities are able to make very high quality community disclosures as against companies in industries such as Technology and Industrials.

Table 8. 1: Descriptive Statistic for TQS by Industry

Industries	Mean	Std Dev	Median	Min	Max
Basic Materials	3.71	2.25	4	0	7
Consumer Goods	3.94	2.2	4	0	9
Consumer Services	4.53	1.91	5	0	10
Financials	4.70	2.02	5	0	8
Health Care	3.86	2.45	4	0	8
Industrials	2.89	2.22	3	0	7
Oil and Gas	3.44	2.27	4	0	8
Technology	1.98	2.09	2	0	6
Telecommunication	3.42	2.48	4	0	8
Utilities	4.67	2.16	4	0	9
Total	**3.71**	**2.34**	**4**	**0**	**10**

However a comparison of these statistics with that of Table 6.2 of Chapter 6 reveals that industries found with the highest volume of disclosures, such as Health care and Basic materials were not those with the highest quality of disclosures. This supported the researcher's argument in section 2.4.3 of Chapter 2 and 5.4.2.4 of Chapter 5 that specificity and substance rather than the quantity of disclosure should determine quality.

Table 8. 2: Correlation Matrix of the Explanatory Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. VolCCID	1.000														
2. BODMET	0.042	1.000													
3. BODSIZ	0.284	0.039	1.000												
4. BODCOMP	0.247	-0.032	0.181	1.000											
5. AUDMET	0.303	0.235	0.376	0.352	1.000										
6. AUDSIZ	0.119	0.085	0.445	0.319	0.242	1.000									
7. DISCOM	0.237	0.144	0.331	0.251	0.410	0.139	1.000								
8. RISCOM	0.068	0.040	0.033	0.072	0.247	-0.006	0.152	1.000							
9.CSRCOM	0.254	0.101	0.238	0.199	0.318	0.219	0.340	0.081	1.000						
10.EXTAUD	0.153	0.107	0.118	0.115	0.256	0.080	0.129	0.131	0.135	1.000					
11. ROE	0.214	0.071	0.059	-0.019	0.076	0.044	0.145	0.007	0.107	0.017	1.000				
12. ROA	0.128	-0.009	-0.073	-0.012	-0.028	-0.049	0.061	-0.039	0.040	-0.013	0.843	1.000			
13. LEV	0.166	0.100	0.192	0.033	0.127	0.235	0.076	0.058	0.088	0.076	0.130	-0.102	1.000		
14. LnTURN	0.317	0.215	0.633	0.187	0.533	0.457	0.346	0.159	0.292	0.267	0.189	0.041	0.360	1.000	
15. LnMKTCAP	0.281	0.124	0.456	0.054	0.436	0.317	0.329	0.191	0.268	0.252	0.160	0.053	0.221	0.632	1.000
16. PROFILE	0.226	0.036	0.232	0.131	0.137	0.178	0.167	-0.135	0.092	-0.017	0.050	-0.103	0.415	0.282	0.162

8.2.2.2 Correlation Analysis

Table 8.2 presents the correlation matrix for the explanatory variables. The researcher recorded low correlation between the explanatory variables except for ROA and ROE with slightly high correlation of 0.84. This suggests that multicollinearity, if present should be minimal among the independent variables. Nevertheless the researcher computed the variance inflation factor (VIF) for all variables to check further for the existence of multicollinearity.

8.2.3 Regression Results and Discussions

Using (Eq.14) above, the RE-GLS estimator was selected for use in this study after carrying out several test as in previous chapters. This was necessary in order to determine its validity and efficiency in handling the data for this current study. The Hausman test (see Appendix 10a) was not significant at ($P < 0.05$) level and thus failed to reject the null hypothesis that the unique errors (u_i) are not correlated with the explanatory variables (Greene, 2008), thus favouring RE estimator over the FE. Further tests carried out to check the efficiency of the RE estimator using the Breusch-Pagan LM test (Appendix 10b) was significant at 1% level indicating that RE estimator is valid and efficient in handling this analysis.

The regression results are presented in Table 8.3 Panels A and B. The table sets out the regression results for three models with TQS as dependent variable for all three models. The results show an overall R^2 of 56% in all three models, which is an improvement over the pilot study 2 with an overall R^2 of 44% (Yekini & Jallow, 2012) in appendix, 12. Thus the results indicate that the model specified in Equation 14 above was able to explain 56% of the variation in the total quality of community activities disclosed in annual reports. The χ^2-statistics is significant at 1% level thus indicating the overall significance of the model. The results also show *rho* of 0.26 indicating that only 26% of variation in the quality of CCID cannot be explained by differences across entities. In other words, the quality of community activities disclosed in sampled annual reports is largely due to differences across entities such as membership of different industries as revealed by table 8.1 above.

Table 8. 3: The Relationship between TQS and VolCCID

Panel A: RE-GLS Regression with all independent variables (Main Model)

Variables	Coefficients	Robust Std. Error	z – start	P-value	VIF
Constant	-1.153	0.616	-1.87	0.061*	
VolCCID	0.003	0.000	13.18	0.000***	1.31
CG Variables:					
BODMET	0.012	0.024	0.52	0.604	1.13
BODSIZ	0.041	0.035	1.18	0.237	1.96
BODCOMP	0.292	0.533	0.55	0.583	1.41
AUDMET	0.099	0.064	1.56	0.118	1.84
AUDSIZ	-0.105	0.068	-1.54	0.122	1.53
DISCOM	-0.354	0.180	-1.97	0.049**	1.41
RISCOM	0.234	0.173	1.35	0.177	1.16
CSRCOM	0.280	0.151	1.86	0.063*	1.24
EXTAUD	0.694	0.218	3.19	0.001***	1.14
Firm specific characteristics:					
ROE	0.003	0.007	0.41	0.685	4.48
ROA	-0.011	0.010	-1.10	0.270	4.42
LEV	-0.002	0.003	-0.71	0.475	1.50
LnTURN	0.206	0.071	2.91	0.004***	2.94
LnMKTCAP	0.045	0.040	1.14	0.255	1.86
PROFILE [a]	0.441	0.231	1.91	0.056*	1.39
R^2: Within =	**0.419**	**χ^2 =**	**507.99*** **		
Between =	**0.704**	**Rho =**	**0.26**		
Overall =	**0.558**	**N = 798**			

Panel B: Checking the effect of Multi-collinearity

Variables	Model 1 Coeff. (z-stat)	Model 1 P-value	Model 2 Coeff. (z-stat)	Model 2 P-value
Constant	-1.213 (-2.10)	0.036**	-1.046 (-1.63)	0.104
VolCCID	0.003 (13.26)	0.000***	0.003 (13.22)	0.000***
CG Variables:				
BODMET	0.024 (1.03)	0.302	0.022 (0.95)	0.341
BODSIZ	0.086 (2.77)	0.006***	0.081 (2.62)	0.009***
BODCOMP	0.392 (0.72)	0.472	0.320 (0.58)	0.562
AUDMET	0.129 (2.09)	0.036**	0.129 (2.09)	0.037**
AUDSIZ	-0.083 (-1.24)	0.214	-0.083 (-1.24)	0.217
DISCOM	-0.342 (-1.92)	0.055*	-0.341 (-1.91)	0.056*
RISCOM	0.303 (1.78)	0.074*	0.286 (1.69)	0.092*
CSRCOM	0.284 (1.89)	0.058*	0.289 (1.93)	0.054*
EXTAUD	0.800 (3.69)	0.000***	0.795 (3.61)	0.000***
Firm specific characteristics:				
ROE	-0.002 (-0.64)	0.523		
ROA			-006 (-1.28)	0.199
LEV	-0.000 (-0.06)	0.950	-0.001 (-0.23)	0.820
LnMKTCAP	0.075 (2.15)	0.032**	0.075 (1.94)	0.053*
PROFILE [a]	0.554 (2.48)	0.013**	0.554 (2.48)	0.013**
R^2: Overall =	**0.562**		**0.555**	
χ^2 =	**485.13*** **		**465.03*** **	

***Significant at 1% = ($p \leq 0.01$), **Significant at 5% = ($p \leq 0.05$), *Significant at 10% = ($p \leq 0.10$).

[a] Dichotomous variable for industry sectors where 1 = Industry with High public profile and 0 for those with low public profile.

Quality and Volume of CCID

The results presented in Table 8.3 above are consistent with those of the pilot study (2) documented in Yekini and Jallow (2012). The hypothesis was to test the extent of the relationship between the quality (TQS) and the volume (VolCCID) of community involvement activities as disclosed in annual reports of sampled companies. According to signalling theory, CCID will qualify as a true signal or measure of actual community development, if the disclosures consist of verifiable activities. Therefore, the researcher expected that as the volume of CCID increases the quality should also increase significantly indicating disclosures of more verifiable community projects rather than general statements (see Chapter 3, sub-section 3.2.4 for discussions on signalling theory and Chapter 5, sub-section 5.4.2.4 on quality measure).

The regression result in Table 8.3, Panel A, although highly significant, produced a positive co-efficient of 0.003, while holding other variables constant. This result was maintained even after controlling for the effect of multicollinearity in Panel B. The result is indicative of the fact that, although the quality of CCI disclosures of sampled annual reports increased as VolCCID increased across time, the impact of VolCCID on TQS is very small as the coefficient of VolCCID is almost zero, thus providing a partial support for H7. Nevertheless, going by the descriptive statistics in Table 8.1 above, the results may also indicate that those companies disclosing very high volume of CCID more often than not produces low quality disclosures, while those with high quality disclosures are characterised with low volume of disclosures. For example Health care industry with average yearly volume of 665 words has average yearly TQS of 3.86, while Financials with an average yearly volume of 481 words has the highest average TQS of 4.7 per annum.

TQS and the Control Variables

The results of the control variables are consistent with the findings in Chapter 6 except that turnover which was not statistically associated with VOLCCID in Chapter 6 is significantly associated with TQS at 1% level. Also contrary to the results in Chapter 6, the results show an inverse relationship between TQS and the two measures of profitability (ROA and ROE). This is suggestive of the fact that company size as measured by turnover may influence the quality of CCID which is consistent with studies like Patten (1991 & 1992); Hackston and Milne (1996); Adams *et al.* (1998); Ho and Wong (2001) and Campbell *et al.* (2006). Similarly the negative profitability/disclosure relationship is consistent with the findings of Freedman and Jaggi (1988) who found that disclosure was negatively correlated with net income with disclosure increasing despite poor economic performance. This current study suggests that the decision to invest in verifiable projects may not necessarily be influenced by short-term economic performance, but rather by the size of the company.

8.2.4 Section Summary

In this section of the chapter, the researcher predicted that the quality of CCID in annual reports (measured by TQS) should have a positively strong association with the volume of CCID (measured by VOLCCID) if community disclosure is a true measure of actual community involvement by corporations while using signalling theory as the basis. However the findings revealed that CCID in annual reports of sampled companies cannot be said to reflect active involvement in the community – as measured by quality of disclosure (i.e. specific and detailed accounts of actual involvement). Firstly, the fact that the coefficient produced was nearly zero shows that most of the disclosures consist of general statements rather than specifics hence most of the disclosures only contains a few inimitable projects and therefore do not qualify as a signal of actual community involvement. Secondly, responses to CG measures confirm Tom's (2002) assertion that the governance perspectives of monitoring and controlling contribute to the creation of environmental reputation, thus corroborating signals of adherence to societal expectations – so as to be seen as socially responsible.

Nevertheless, as this is a quantitative approach to investigating reality, the findings in this section can only be sustained when the text of CCID is investigated further using a more qualitative approach, specifically in this case – semiotics. This may reveal the meanings behind the disclosure and may expose the reasons why quantity but not quality of disclosure is the norm.

8.3 Reality of Community Disclosure – Qualitative Perspective

8.3.1 The Sample and Data

The sample for this section was selected from the sampled companies used for the quantitative analysis. Efforts were made to ensure a fair representation of all ten ICB industrial classifications in the sample; however selection was based on the industrial profile classification of Chapter 6; ten companies each were selected from each of the profiles – high public and low public profiles industries. In addition, to ensure a fair balance, two companies were chosen randomly to represent each industry. Also for the purpose of this section time period was bifurcated into two time periods: T1 = 1999 to 2004 and T2 = 2005 to 2009. It was expected that more quality reports would be made in the second time period T2 (2005 – 2009) due to increased global awareness of CSR. Therefore one annual report was selected from each time period for sampled companies. The researcher selected years that were felt to provide the greatest amount of text which could be analysed meaningfully. Texts produced for other years were short statements which telling in themselves, did not lend themselves to semiotic analysis. The final sample for semiotic analysis therefore consisted of 40 annual reports selected from 20 of the 73 companies used for the quantitative study. See Tables 8.4 for details.

Table 8. 4: Final Sample for Semiotic Analysis

Industries	Profile	TQS Mean	VOLCCID Mean	Sampled firms for semiotic analysis	No of Annual reports for semiotics
Basic Materials	0	3.71	484	2	4
Consumer Goods	1	3.94	492	2	4
Consumer Services	1	4.53	546	2	4
Financials	1	4.70	481	2	4
Health Care	1	3.86	665	2	4
Industrials	0	2.89	275	2	4
Oil and Gas	0	3.44	288	2	4
Technology	0	1.98	208	2	4
Telecommunication	1	3.42	370	2	4
Utilities	1	4.67	593	2	4
Total		**3.71**	**437**	**20**	**40**

The annual report alone was used for this investigation; firstly because the same document was used for the quantitative section. Secondly the annual reports provided a representation (the genre) of the company to the outside world at a point in time. Although its production has a regulatory undertone, it also represents a form of stewardship report to the owners of the corporation on how the company has been managed on their behalf. Therefore the text of community disclosure narratives is assumed to be targeted at the owners. The language of all the texts analysed is English. The analysis is specific to the message transmitted regarding the involvement of sampled companies with their communities. Consequently the selection of text follows the quantitative study format in that it is taken from the parts of the annual reports relevant to the study of community involvement.

8.3.2 Method of Analysis

In this thesis the researcher employed the Greimasian narrative semiotic method[38] (Greimas, 1966/1983; Greimas & Courtés, 1982). The Greimasian narrative semiotic identifies the structural pattern in narratives and aims to clarify the necessary condition producing values through which reality may be perceived (Sulkunen & Torronen, 1997). The method looks beyond the sign itself into the system of signification in order to uncover the truth or falseness of the sign. A narrative as defined by Propp (1928) is a "set of interlocking signs whose meanings are determined by underlying rules that regulate how different units of text may be combined" (Propp, 1928, cited in Fiol, 1989:279). Narratives take the form of a sequence of events, actions or experiences with different parts all put together as a meaningful whole (Feldman *et al.*, 2004) and connected to a central purpose (Gilbert, 2002), thus reflecting the underlying values of the narrator (Propp, 1958; Eco, 1994). Accordingly narratives usually consist of a subject (the narrator or author), the object (the act or story being narrated) and the subject's competence/performance (ability to do/the act of doing) (Hébert, 2005).

The narrative semiotics method is particularly suitable for this study because the study considered CCID which are recorded corporate messages narrated in the form of folktales/stories in annual reports. The reports tell stories of the involvement of the corporation in developments within their community of operations. Thus the stories

[38] See chapter 5, section 5.4.3.2 for discussions on other school of thoughts on semiotic analysis.

give specific details of the company's activities within its community of operation with the objectives of reflecting the underlying values of a good corporate citizen to the readership of the annual reports. In other words the management (of corporations) is the *subject*[39] or *author*, the content of CCID is the *object* or *message*, while the audience consists of investors, analysts and other users of annual reports, who from time to time may need to read the content of community disclosure to help inform their decision to invest or not to Invest.

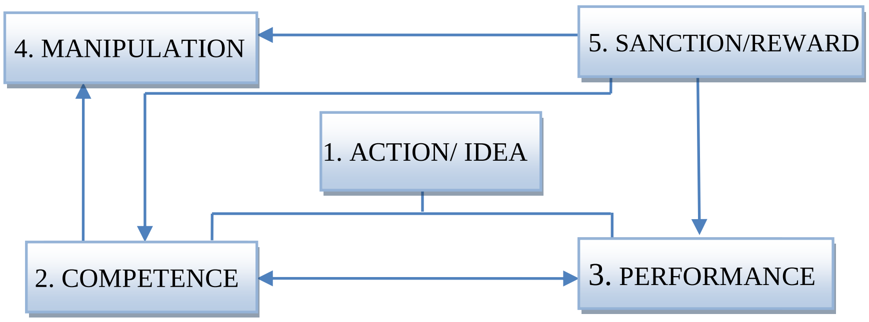
8.3.3 The Model of Analysis

In narrative semiotics, narratives are analysed as a series of schemas in which the semiotic act or story may be structured into components (Hébert, 2011). The five components identified by the Greimasian Canonical Narrative Schema are;

1. **The action/idea** – that is, the act itself
2. **Competence** – what is required to achieve the act, this is described in semiotics as *wanting-to-do* or *knowing-how-to-do*,
3. **Performance** – the actualization of the action i.e. *having-to-do* and *being-able-to-do*
4. **Manipulation** – the compelling force, described in semiotics as *causing-to-do*
5. **Sanction** or reward – that is, evaluation of *performance* for its quality.

This may be illustrated diagrammatically as follows:

Figure 8. 1: The Canonical Narrative Schema



Source: Tools for Text and Image Analysis an Introduction to Applied Semiotics Analysis (Hébert, 2011:93).

[39] Italics are used in this section for author's emphasis.

Although in a typical analysis not all these components are used, but the components could at least provide the basis for a typology of discourse in a particular narrative analysis, depending on the trajectory of the texts and on what component is most emphasized in the narrative to be analysed (Courtés, 1991, cited in Hébert, 2011), or on what the researcher is interested in investigating. Moreover the existence of one component ultimately leads to the logical presence of the other (Floch, 1988). This confirms the fact that the structure of narratives is syntagmatic and is both temporal and spatial.

For instance the *idea* of getting involved in community development will usually be preceded by the *manipulation* component – *causing-to-do,* that is, the corporation must have been compelled or motivated by something, say community need or the need to legitimize its operation, before deciding to get involved (i.e. *competence* or *wanting-to-do*) in community development (i.e. *performance*). In other words the *competence* and *performance* components follow simultaneously, thus indicating that two components may be implicit in one. Hébert (2011) argued that the relationship between *competence* and *performance* is that of "reciprocal presupposition" in which case *competence* will necessarily mean *performance* and whenever there is *performance* this would have been preceded by *competence* (Hébert, 2011:96). Furthermore the *performance* component is ultimately followed by the *sanction* component which is more or less an evaluative component.

8.3.4 The Analysis

For the purpose of uncovering the reality of community disclosure in annual reports therefore, the researcher employed a two-phased narrative analysis. The first phase involved the identification of the modality of the narratives based on the narrative schema discussed above. The second phase identified the cognitive perspective (Maddox, 1989), developed into veridictory positions using the semiotic square of veridiction in order to determine the ontological status. However before proceeding into the description of each process, it is imperative to discuss the creation of modality. The modality refers to the structure evaluating the state of affairs of the subject (Sulkunen & Torronen, 1997): that is, the *being* and *doing* of the subject of the narratives (Fiol, 1989) and whether or not reality may be constructed.

Modality may be viewed from two perspectives: the morphological and the semantic. The morphological perspective views modality from the grammatical angle that is, the interconnectivity and interdependence of the words used in the narrative (Sulkunen & Torronen, 1997), while the semantic approach views modality from the perspective of the content of the narrative and their signified (Hébert, 2005). The semantic approach is considered relevant to this study since the values imputed to a phenomenon by the components of the narrative schema enumerated above do not make up the meaning of the action itself, nor do the grammatical relationships of words reveal the reality of the phenomenon (Sulkunen & Torronen, 1997; Hébert, 2005). Conversely, in the semantic plane of texts, values are imputed when the dialectics, that is, the state of affairs, the processes and the actors involved in them along with the logical sequencing of the content of the narratives are subjected to modal evaluation known in semiotics as dialogics. Modal evaluation is to determine whether the semiotic act can be said to be true or false (known as veridictory status) or whether the semiotic act can be situated in one of the three worlds of the semantic universe, that is: the actual world (*what is*), the counterfactual world (*what is not*) or the possible world (*what could be*). This is known in semiotics as the ontological status i.e. relating to existence or ontology, hence the ontological status may be: real, unreal or possible/doubtful (Hébert, 2005:139).

Consequently to understand social reality, a semantic unit is usually formulated as a logical proposition and then evaluated on its veridictory and ontological status (Hébert, 2011). For instance, the proposition (the Sky is blue), may be assigned a true or false value (the veridictory status) which will then determine the world in which it should be situated (i.e. actual, counterfactual or the possible world). So if the proposition – *the Sky is blue* – is say *true,* then it is situated in the actual world and assigned an ontological status of *real*. Conversely, if it is false or a combination of true and false, it might be situated in the counterfactual or the possible world. However the components of the canonical narrative schema enumerated above suggested that to perform a semiotic act, an actor or narrator is not only motivated by something, but should also exhibit the desire and willingness to perform the act. In addition the competence to perform and actual performance of the act must be evident before signification can occur. This may pose some difficulty with the semiotic of CCID as it implies that several related modal structures would have to be constructed and consequently different propositions with different degrees of certainty.

This complexity tends to give rise to some complications in determining the semantic universe and hence the ontological status of the semiotic of CCID. To solve this problem, Greimasian semioticians such as Floch (1988); Fiol (1989); Sulkunen & Torronen (1997) argued that the signification process should be generative in nature. First, it should begin with the formation of propositional discourse which develops from "simple deep" semio-narrative structures i.e. exhibiting abstract articulation with little condition for signification and then progress to the formation of discourses developed from "rich and complex discursive structures" (Sulkunen & Torronen, 1997:51) which enriches signification by manifesting distinct expression of reality.

Therefore for the semiotic of CCID, the generative process of signification requires a logical organisation of modal structures such that the juxtaposition of a set of propositions should qualify them to be situated in the same semantic universe so as to generate signification. For instance the semio-narrative structure may include simple utterances of *being*, that is the corporation has knowledge of a specific need within their community of operation and therefore is motivated to a further utterance of *doing*, which could be supplying or meeting the specific need. These thus show a transformation from the state of *being* to the state of *doing* and thus form a rich and complex discursive structure (Sulkunen & Torronen, 1997).

Nevertheless in order to achieve a logical and comprehensive taxonomy of discourses that would reveal the underlying value of corporations and thus allow for the construction of reality, the researcher argued that a real act of development should not be a one-off event but should take into consideration future development. Hence the content of such narrative reports should not only be outward-looking, but also forward-looking (Crowther, 2002). Forward-looking information, it has been argued, is capable of producing value relevance information to the audience (Beretta and Bozzolan, 2008). Consequently in addition to the arguments in Chapter 4, sub-section 4.4.2, on the development of propositions for this part of the thesis, the researcher put both the current and future semiotic act of community involvement into perspective, while taking into consideration how these are articulated in the narratives. Thus the following propositions developed in Chapter 4, sub-section 4.4.2 form the basis of the modal structure upon which each narrative content will be analysed. They describe the necessity or possibility of each phenomenon:

Proposition 1a

The written report on community involvement shows evidence of corporations' concern or awareness of specific needs identified within their community of operation. – **Manipulation Component**

Proposition 1b
The written report on community involvement shows evidence of the corporations meeting the specific needs of the community within their community of operation. – **Competence and Performance Component.**

Proposition 2a
The written report identifies future development targets. – **Manipulation Component.**

Proposition 2b
The written report considers future targets as a reflection of further community developments along with past performance. – **Competence Components which will ultimately lead to future Performance.**

It follows therefore that proposition (1b) follows logically from proposition (1a) and proposition (2b) follows logically from proposition (2a), essentially conceptualizing the components of the narrative schema discussed earlier: ***Manipulation or motivation*** (causing-to-do); ***Competence*** (wanting-to-do or knowing-how-to-do) and ***Performance*** (having-to-do or being-able-to-do). Therefore for signification to occur proposition (1a) must be evident along with (1b) or at least implicit in one another. Subsequently proposition (2a) must be evident along with (2b) or at least implicit in one another. Hence for the purpose of ontological classification the propositions are paired up such that the validity of each set of proposition is investigated under various world conditions by applying them to the narratives of community involvement as disclosed in the annual reports of sampled companies.

Against this background therefore the analysis proceeds as follows:

Phase 1: The first phase involved three steps;

Step 1: was to identify the semiotic act or acts – how many stories were told in each report? That is the information on community activities was sorted out according to the category of community involvement thus following the quantitative study format. See Table 8.5 below for details. Four categories were identified – community projects; health and related activities; education and the arts and other community activity[40]. Each topic represents a semiotic act of community involvement, thus a unit of analysis.

[40] See Chapter 5, Table 5.2 for detailed discussion on the content of each category of community activity

Table 8. 5: List of Companies and reported CCI for Semiotic Analysis

Sampled Companies	Annual Report Year	Community Program (Words)	Education & the Art (Words)	Health & Related Activities	Other community activities	General Statement (Words)
Aquarius Platinum	2003	131	13	156	0	30
	2008	105	0	140	0	124
BHP	2005	0	0	0	0	155
	2009	155	0	0	0	365
British American Tobacco	2004	0	0	0	0	35
	2009	51	0	0	283	302
Unilever	2002	60	103	113	0	115
	2008	122	0	307	0	465
WPP	2001	0	202	0	328	246
	2006	365	149	176	0	240
Tesco	2002	469	45	0	28	131
	2006	190	372	101	115	508
Lloyds	2003	266	64	0	0	188
	2007	843	0	0	131	215
Prudential	2000	260	263	0	0	0
	2005	231	319	0	105	0
Smith &Nephew	2004	0	0	326	0	190
	2009	0	159	166	0	62
BTG	2004	210	0	0	0	0
	2009	180	157	36	0	51
Carillion	2003	95	137	0	67	137
	2009	195	68	0	0	255
Rolls Royce	2003	538	462	0	0	102
	2006	507	237	0	0	358
Premier Oil	2004	0	59	0	0	95
	2009	40	0	0	0	176
BP	2003	123	0	0	0	367
	2008	184	232	0	57	164
ARM Holdings	2001	53	227	0	0	0
	2005	210	264	0	0	78
Computacenter	2004	0	0	0	0	64
	2009	107	105	0	0	110
BT Group	2004	116	81	0	129	89
	2009	244	54	0	30	84
Carphone Warehouse	2003	231	59	182	0	217
	2008	467	240	0	0	284
Centrica	2003	899	228	0	33	112
	2009	96	0	0	0	146
Severn Trent	2003	527	369	0	0	44
	2005	0	530	0	0	138

Step 2: was to uncover the structural pattern of the narratives, which is to identify the modality of each semiotic of community involvement as discussed earlier.

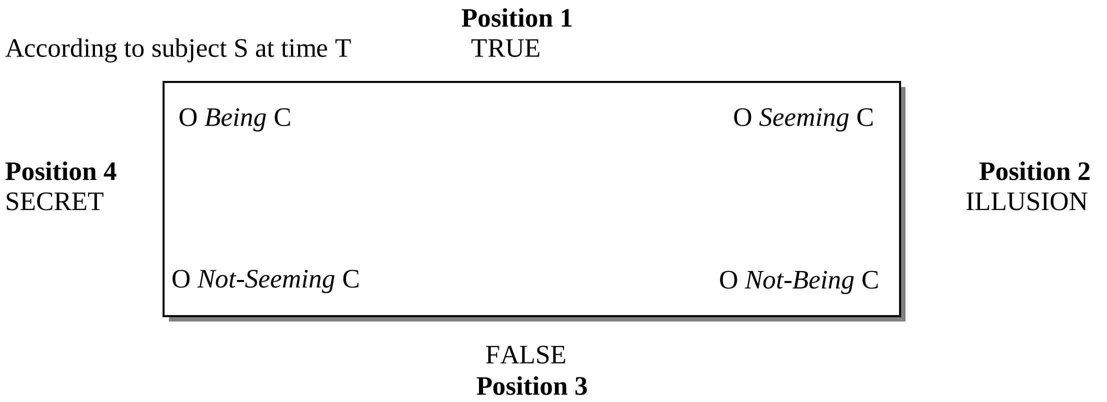
Step 3: In step3 each topic or unit of analysis was examined by applying the four propositions above in order to determine the tonality of the characteristics observed in each story. The tonality refers to the veridictory characteristics of each story, which is denoted by the meta-terms (being, not-being, seeming, not-seeming). This is similar to examining whether or not a hypothesis was supported in a quantitative experiment.

Phase 2: This is the *sanction* phase. In this phase the outcome of step 3 above was subjected to further evaluation in order to examine the truth or falseness of the performance using the *semiotic square of veridiction* also called the *Veridictory Square*. It is a type of semiotic square built on the oppositions *being* and *not-being* or *seeming* and *not-seeming* and was developed by Greimas and Courtés (1982). Veridictory square is used to examine the extent of truth/falseness in any semiotic act where truth or falseness is fundamental to the whole analysis (Hébert, 2005:92). Consequently in the current study, since reality lies in the truth and authenticity of the performance reported, the researcher considered the use of the semiotic square of veridiction as very relevant to this study. The square was used in this study to determine the ***sanction*** components referred to in the semiotic schema above and thus in evaluating the reality (ontology) and quality of performance as claimed by the performing subject based on the characteristics of the features observed in the story from step 3 above. Basically the main elements of the Veridictory square are:

1. The subject – the narrator or author shown as 'S' on the square
2. The object – the act or performance shown as 'O' on the square
3. The characteristics observed in the object shown as 'C' on the square
4. The Veridictory status, which could be true, false, illusory or secret depending on the combination of the meta-terms (being, not-being, seeming or not-seeming) assigned to it in Phase1(step3), that is;
   - ✓ True (*being* + *seeming*),
   - ✓ False (*not-being* + *not-seeming*),
   - ✓ Illusory *(not-being* + *seeming*), and
   - ✓ Secret (*being* + *not-seeming*) (Hébert, 2005:39)

This is illustrated diagrammatically below:

Figure 8. 2: The Semiotic Square of Veridiction



Legend: **S**: subject; **O**: object; **C**: characteristic; **T**: time-period
Source: Tools for Text and Image Analysis an Introduction to Applied Semiotics Analysis (Hébert, 2005:42).

In other words the story narrated by subject S in time T is assessed on the basis of the propositions and awarded a sanction or reward by assigning the Veridictory status – true, false, illusory or secret – depending on the combination of the meta-terms (being, not-being, seeming or not-seeming) assigned to it. See Table 8.6 below for a fuller description of the process as it applies to this current study.

Table 8. 6: An overview of the method adopted in this thesis

Time	Unit of Analysis	Procedure	Propositions	Veridictory status		Ontological Status
T1	Specific aspect of community involvement: E.g. Health and related activities.	Read each topic/unit of analysis and check for evidence of P1a – P2b	***P1a:** The written report shows evidence of corporations' concern or awareness of needs in the area of health and related activities within their community of operation.*	Seeming/ Being	True	Real/ Certainty
			***P1b:** The written report shows evidence of the corporations meeting the needs in the area of health and related activities within their community of operation.*	Being		
			***P2a:** The written report identifies future targets.*	Seeming/ Being	True	
			***P2b:** The written report considers future targets as a reflection of further community developments along with past performance.*	Being		

To some extent this model embraces both the paradigmatic and the syntagmatic approaches to semiotic analysis. The paradigmatic approach considered the system of signification, while the syntagmatic approach considered the process of signification. The paradigmatic aspect of this analysis can be seen in the use of the opposing meta-terms *being*, *not-being* and *seeming*, *not-seeming* which determines the Veridictory status assigned to each pair of propositions when applied to the semiotic acts. The syntagmatic aspect of the analysis is the complete arrangement of all components into propositional combination, the collective presence of which constitutes signification.

Therefore the components of the narrative schema *Manipulation*, *Competence* and *Performance* were conceptualized in the four propositions thus serving as a deep-structure schema capable of revealing the real motives behind each narrative. Similarly the *Sanction* component was conceptualized in the Veridictory/Ontological evaluation. Consecutively, therefore, to construct reality, the researcher seeks to find evidence of the juxtaposition of both current community involvement and future targets and developments in a particular story. It follows therefore that a particular community involvement story should necessarily embrace all four propositions for signification to occur. In view of this, the analysis was designed to find a distinct spatial description that allows for the coexistence of two pairs of complementary meta-terms [41] - *being/seeming* or *seeming/being* for the first set of propositions (1a & 1b) and *being/seeming or seeming/being* for the second set of propositions (2a and 2b) – such that the two pairs are awarded *True* Veridictory status as depicted in Table 8.6 above. This allows both pairs to be placed in the same semantic universe and thus awarded a common ontological status. Therefore a story with veridictory status as depicted in Table 8.6 can be said to be a true reflection of community development and thus be awarded an ontological status of *real*.

However a change in time, say T1 to T2, may bring about a change in the position depicted above. For instance in a scenario where a change in time from T1 to T2 leads to proposition (P2a) in Table 8.6 being assigned a *seeming* characteristics and (P2b)

[41] The complementarities of the *being* and *seeming* meta-terms can be explained from the point of view of the relational values they possess, for instance for a *being* to exist, there must be a *seeming* in operation, either at the beginning, midway or at the end, which may or may not match its *being*, in other words, according to Hébert, (2005), "*being* is only an abstract reconstruction derived from *seeming*, which is the only accessible reality" (Hébert, 2005:39).

being assigned *not-being,* the position for this pair of proposition will move on the Veridictory square to position 2 (*Illusion).* In this case the ontological status of such a semiotic act will be *doubtful* as far as community development signification is concerned, because if the first set of propositions is true and the second set is a lie (i.e. illusion), then it is not clear if this is a real act of community development or just a one-off event. Hence a community involvement story considered as a semiotic act may only acquire the full ontological status of *real* (reality/certainty) when the Veridictory status of *True* is assigned to both pairs of propositions consistently through time. See Appendix 11, for the workbook used for the analysis.

8.3.5 Findings and Discussions

Table 8.7 presents a summary of the results. The boxes with a dash indicate that, the topic was not reported in that time period. A community act in a particular time period was awarded an ontological status of *real*, where each pair of propositions is assigned a *true* veridictory status for that time period; on the other hand an ontological status of *unreal* is awarded when each pair of propositions is assigned a *false* veridictory status for that time period. Finally, an ontological status of *doubtful* is an indication that in a particular time period one of the pair of proposition is *true* while the other pair is either *false, secret or illusion*.

Nevertheless, going by the rule enumerated in the last section, for reality to be construed about a particular corporation's narratives of its community involvement story, the ontological status of *real* should have been assigned to the two time periods under consideration. Therefore an overall ontological status of *real*, *doubtful* or *unreal* is assigned to the state of affairs depicted by the stories when the two time-periods are combined in the same semantic universe (i.e. actual, counterfactual and possible world). Therefore if an ontological status of *real* is assigned in one time period and *unreal* in another time period, overall ontological status for that corporation's CCI activities is assigned the *doubtful* ontological status. This is so, as the inconsistency on the part of the corporation regarding community activities does not show active involvement in community development.

Industry	Companies	Public Profile	Community Programs		Education & the Art		Health & Related activities		Other Community activities	
			T1	T2	T1	T2	T1	T2	T1	T2
Basic Material	**Aquarius Platinum**	0	Doubtful	Doubtful	Doubtful	-	Doubtful	Doubtful	-	-
	BHP	0	-	Unreal	-	-	-	-	-	-
Consumer Goods	**British American To.**	1	-	Unreal	-	-	-	-	-	Real
	Unilever	1	Doubtful	Doubtful	Doubtful	-	Real	Real	-	-
Consumer services	**WPP**	1	-	Doubtful	Real	Doubtful	-	Real	Real	-
	Tesco	1	Real	Real	Doubtful	Real	-	Doubtful	Doubtful	Doubtful
Financials	**Lloyds**	1	Unreal	Real	Unreal	-	-	-	-	Real
	Prudential	1	Real	Doubtful	Doubtful	Real	-	-	-	Real
Healthcare	**Smith &Nephew**	1	-	-	-	Real	Real	Real	-	-
	BTG	1	Unreal	Unreal	-	Real	-	Doubtful	-	-
Industrials	**Carillion**	0	Doubtful	Real	Real	Real	-	-	Unreal	-
	Rolls Royce	0	Unreal	Real	Real	Real	-	-	-	-
Oil & Gas	**Premier Oil**	0	-	Doubtful	Doubtful	-	-	-	-	-
	BP	0	Doubtful	Real	-	Real	-	-	-	Real
Technology	**ARM Holdings**	0	Real	Real	Real	Real	-	-	-	-
	Computacenter	0	-	Unreal	-	Doubtful	-	-	-	-
Telecommunication	**BT Group**	1	Doubtful	Real	Doubtful	Doubtful	-	-	Real	Unreal
	Carphone Warehouse	1	Doubtful	Real	Doubtful	Real	Doubtful	-	-	-
Utilities	**Centrica**	0	Real	Doubtful	Doubtful	-	-	-	Doubtful	-
	Severn Trent	0	Doubtful	-	Doubtful	Doubtful	-	-	-	-

Table 8. 7: Summary of Results from Semiotic analysis of CCID

Consequently, Table 8.7 revealed that of all the reports examined, only 7 reports from 6 of the companies sampled reported community activities assigned with a '*real'* ontological status for both time periods, thus an overall '*real'* ontological status. The implication of this is that only 6 of the companies can be said to be actively involved in, and are committed to, one form of community development or the other with all certainty throughout the period under consideration. However community disclosures with ontological status of *real* in one of the time-periods but having any other ontological status other than *real* or not reported in the other time-period represented about 40% of the total reports examined. Such reports are classified as *doubtful* while community activities classified as *unreal* were those with any status other than *real* in both time periods; such reports constitute more than 47% of the total reports considered (see Figure 8.3 for details).

8.3.5.1 Examples of the '*Real*' Ontological Status

Of the six companies assigned with *real* ontological status, two were actively involved in health and related activities, these are; Smith & Nephew and Unilever; three were actively involved in the furtherance of Education and the Art, that is Carillion, Rolls Royce and ARM Holdings, while ARM Holdings in addition to Educational activities is also actively involved in community projects together with Tesco. A few relevant excerpts from these companies' annual reports are as follows, while most reports classified as *real* are very similar to these:

Excerpt 1: From Smith & Nephew's Annual Reports, (2004: 20):

The Group's principles for charitable giving are based on the criteria of being relevant to its three areas of expertise — orthopaedics, endoscopy and advanced wound management, with the focus being on medical education. ... For example, project Apollo is ... designed to support ... surgeons, hospitals and charitable organisations by providing: medical products; healthcare information; medical and technical consulting; person-to-person support through employee volunteers; grant programmes covering transportation costs of medical personnel involved in relief efforts; ... ; and medical textbooks for students in developing areas. The Group realises that technologies and products designed to support the process of healing for physicians and their patients around the world appear at a fast pace and that these advancements do not reach everyone.

The Smith & Nephew Foundation ... offers awards to individuals in the nursing professions who wish to undertake postgraduate research with the objective of improving clinical practice in nursing and midwifery in the UK in order to enable them to further their professional training and education, thereby improving their clinical practice, medical knowledge and patient outcomes.

Excerpt 2: From Smith & Nephew's Annual Reports, (2009: 18):

The Group is committed to supporting surgeon, clinician and nurse training both associated directly with the Group's products and more generally. Examples during 2009 include: Orthopaedics continued to expand its KLEOS programme, which is a medical education platform which offers seminars, fellowships, instructional videos and literature reviews. Orthopaedics also contributed by providing grant support for research, graduate medical education fellowships and continuing medical education through the independent Orthopaedic Research and Education Foundation. ... In Advanced Wound Management, much of the focus is on the training of nurses.

Excerpts 1 and 2, from the Smith & Nephew 2004 and 2009 annual reports respectively, are examples of real commitment to community development in the area of health and related activities. The generative process of signification is clearly evident in these stories. The stories contained *seeming* evidence of the company's awareness of the need for more professionally trained nurses and the need to get medical products and technologies to surgeons and their patients. The stories also tell of the company's involvement in meeting these needs. For instance, the *seeming/being* of Proposition (1a) is evident in the phrase "*The Group realises...*" (Paragraph 1, line 6, 2004 report) while (1b) is evident in the early part of paragraph one "*...project Apollo is ... designed to support ... surgeons, hospitals ... by providing: medical products etc. ...*" (line 3, 2004 report). Future targets and consideration (propositions 2a and 2b) are evident in the continuing nature of the training offered (2004 report, para.2 and 2009 report, lines 3 & 6). The seriousness of the company in training nurses and in supporting surgeons is evident in the reports throughout the years (2004 through to 2009) by reporting specific details of what was done each year. The implication of this is that the company seeks to inform its audience of its commitment to community development in this area, thus the report signifies the company's involvement in this area of community development.

Excerpt 3: From ARM Holdings' Annual Reports, (2001: 7 & 12):

Our efforts include sponsoring promising students at a number of universities and, in September 2000, we began to sponsor a new four-year MEng degree at Loughborough University. ... It is our belief that in partnering with universities we are helping to train the next generation of innovative engineers, some of whom will come to work at ARM. ... We nurture the skills and creativity of the next generation through our close links with leading universities.... We work with the university to select first-year students, support them throughout their degree course and give them summer jobs.

Excerpt 4: From ARM Holdings' Annual Reports, (2005: 21):

In 2005 ARM continued as a sponsor of the Prince's Trust Technology Leadership Group and has participated in events targeted at widening the knowledge and understanding of technology and contributed expertise to the technology networking events. ... The Group supports the Engineering Education Scheme, Young Engineers and contributes to the funding to train the UK team for the International Maths Olympics. ARM's University Programme engages universities worldwide, designing course material, providing technical seminars, donating equipment and software and offering assistance directly to students.

Similarly excerpts 3 and 4 extracted from the ARM Holdings 2001 and 2005 annual reports respectively, tell stories of the company's commitment to sponsoring engineering students through their university education by working with universities. The company is aware of the need for young engineers and is committed to meeting this need. Students are picked from year one and sponsored through their education. Future targets in the development of engineers included providing work placements for student engineers by giving the students summer jobs and/or a job in ARM after their degree, thus supporting all four propositions. In 2005 further development was reported through the company's support of the Engineering Education Scheme and collaboration with universities.

8.3.5.2 Examples of the '*Doubtful'* Ontological Status

The *doubtful* status was assigned to community activity with *real* in one time period and with a status other than *real* in another time period. What this implies is that it is not really clear what the intentions of these companies are in these reports. The implication of being actively involved in one time-period and relapsing in another time-period could be twofold: one, it could be that the company was actively involved in that area of development in a particular time period because that was the need of the community at that time and once that need was met the company moved to another area of development. Or two, it could just be a one-off event to show adherence to social responsibility or to boost corporate image. However since this could not be clearly established from the reports, such reports were classified as doubtful. Below are examples of relevant excerpts on community projects from Prudential Plc annual reports and educational sponsorship from Carphone Warehouse annual reports.

Excerpt 5: From Prudential's Annual Reports, (2000: 27):

In 2000 our businesses around the world contributed £2 million towards a wide range of community and arts programmes, including the following examples: ... Prudential Property Investment Managers Ltd (PruPIM) is running the Pru Youth Action Shopping Centre Programme, in partnership with Crime Concern. This is moving from strength to strength and now has 10 centres participating in the current phase; with plans to bring on a further three centres during 2001. PruPIM shopping centres are also actively involved with the development of the New Deal Retail Routeway, a retail training scheme for the unemployed.

Employee Volunteering: We marked the Millennium with '£200 for 2000', rewarding over 800 employee volunteers with a £200 grant for their chosen community organisation. Following the success of this, we are running 'TimeGivers' an international employee volunteer reward programme for 2001. ... Across the UK businesses, staff are volunteering in local schools to support numeracy hour, information technology classes and projects focusing on the development of key skills.

Excerpt 6: From Prudential's Annual Reports, (2005: 34):

Investing in our communities
In 2005, we invested £4.7 million in a wide range of projects around our business, supporting education, welfare and environmental initiatives. This total includes the significant contribution made by many of our people around the Group through volunteering, often linked with professional skills development. It also includes direct donations to charitable organisations of £3.5 million.

Excerpt 5 from the year 2000 annual report was assigned with the *true* veridictory status for both pairs of propositions and thus classified as *real* ontological status for that year. The first part of the story tells of Prudential's involvement in a youth programme and retail training activities for youths, indicating a seeming awareness of the need to get the youths engaged and employed so as to prevent them from getting involved in crime. Future targets are also implied in the development of a retail training scheme for youths. Similarly the second story tells of how Prudential encourages employee volunteering in schools and other community project by giving rewards to volunteering staff. There is an implied awareness of shortages of personnel in this area and the fact that Prudential's staffs were able to fill up this shortage by volunteering. The story also tells of further targets and development in encouraging more employees to volunteer.

However in 2005 Prudential's reports on community investments, Excerpt 6 above, was assigned the ontological status of *doubtful* as the veridictory status for the story was *secret* for the first pair of propositions and *false* for the second pair of proposition (Appendix 11). While the story tells how much was invested in a wide range of projects, it does not tell of a seeming awareness of any particular need nor does it tell of targets and plans for future developments. Also the storyline deviated from what it was in the previous time-period. Stories in other years of this time period (2005 – 2009) were narrated in a similar fashion and indeed a repeat of some texts was also noticed. Therefore a juxtaposition of the two time periods gave an overall ontological status of doubtful in this area of community involvements. Hence signification of real involvement in community development in the area of community projects is doubtful.

Excerpt 7: From Carphone Warehouse's Annual Reports, (2003: 10):

... In May 2003, Carphone Warehouse hosted an Art Auction on behalf of the Park Royal Partnership and Schools Link project, where companies bid for a piece of artwork of their choice, from an outstanding array of items from the most promising and upcoming young local artists. All monies raised for works of art were returned to the participating schools.

Excerpt 8: From Carphone Warehouse's Annual Reports, (2008: 22-23):

Our fixed line business, TalkTalk, has also continued to support TreeHouse, the national charity for autism education, which aims to improve the lives of children with autism across the UK. ..... At its most profound, children with autism may never acquire spoken language, require constant 24-hour care and may be perceived to be living in a world of their own. Their lives, and those of others who care for them, can be extremely stressful and families can be driven to desperation. TalkTalk has pledged £500,000 to TreeHouse over the next five years and will be working closely with the charity on a joint project to launch an online service to guide and connect families affected by autism through the maze of practical and emotional information. TalkTalk also continues to donate 1p for every call made to our directory service 118111 to TreeHouse.

Similarly excerpts 7 and 8 above, tell stories of educational sponsorship by Carphone Warehouse. However while excerpt 7 is assigned with the *doubtful* ontological status for that time period excerpt 8 is assigned with the *real* ontological status, thus giving an overall *doubtful* status. In excerpt 7, the first pair of propositions was assigned with *true* veridictory status and *false* for the second pair of propositions (Appendix 11). The story tells of how the company hosted an art auction and all monies raised were returned to participating schools. This implies a seeming need to promote and raise money for art in schools and the fact that this need was met by Carphone Warehouse. However the story did not tell of targets and plans for future developments in this area. The story for other years within the time period (1999 – 2004) all have similar stories thus indicating no real commitment for development in the area of education in this time period.

On the other hand, excerpt 8 was assigned with *true* veridictory status for both pairs of propositions (Appendix 11). The stories tell of how Carphone Warehouse's TalkTalk business is committed to supporting TreeHouse, the national charity for autism education. In addition to pledging an amount to the charity over five years the story also shows a seeming awareness of the need to support the families and carers of children with autism and how the company could help meet this need by working in partnership with the charity. Future targets and the developmental plan are also evident in the joint project to launch an online networking service that could help alleviate the sufferings of affected families. Hence a real commitment to supporting autism education is evident in the story.

Again a juxtaposition of the two time periods gave an overall ontological status of *doubtful* in this area of community involvement. This is so because it is not really clear why the company was not consistent in earlier years, as argued earlier. It could be that the company did not identify the educational need then. Or probably the company only just realised its responsibility within its community of operation or better still the company only got involved as a way of demonstrating good corporate citizenship and hence enhanced their reputation. Reports classified under the doubtful status all have similar inconsistencies.

8.3.5.3 Examples of the *'Unreal'* Ontological status

Community activities classified as *unreal* were those with any status other than *real* in both time periods. Below are examples of relevant excerpts from BTG's annual reports:

Excerpt 9: From BTG's Annual Reports, (2004:21):

BTG encourages employee involvement in charitable causes in a number of ways. In the UK, BTG operates and promotes a Give As You Earn Scheme, whereby employees can make a regular donation to any registered charity, or other recognised body of their choice, from their monthly pay. In addition, BTG will match other donations made by employees up to a fixed amount that is set annually based on the previous year's donations.... However, we strive to work with charities and organisations that are either in some way local, or of interest to BTG employees. Each year, in the UK, BTG also selects a charity to sponsor, which is chosen by an annual ballot of employees. Employees are encouraged to organise money-raising activities for the charity throughout the year; reasonable use of BTG time and facilities is allowed.

Excerpt 10: From BTG's Annual Reports, (2009:30):

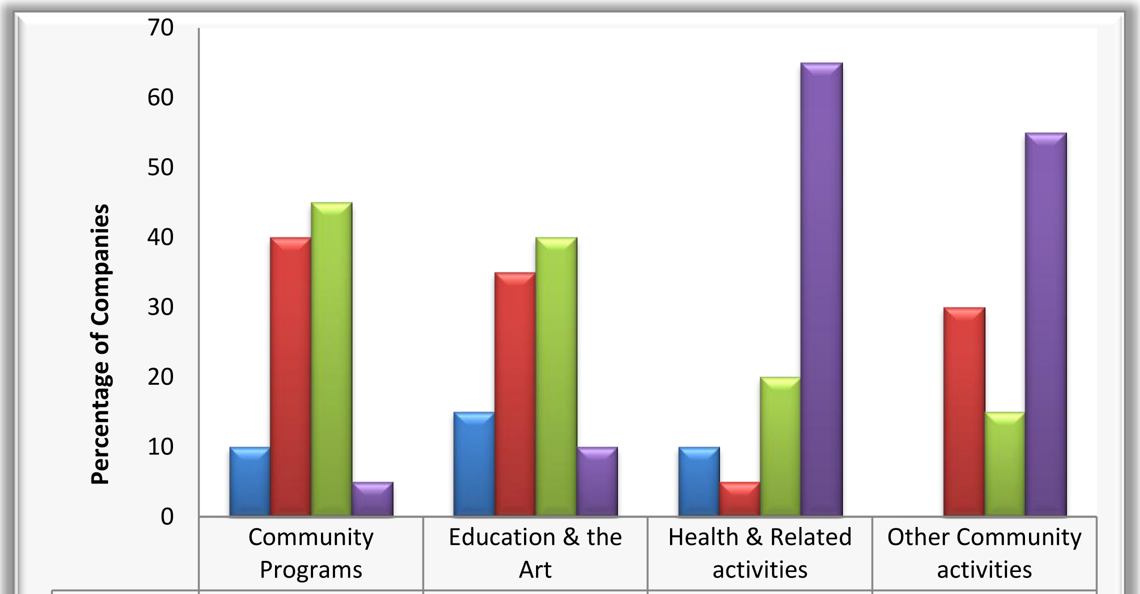
We support charities and organisations that are either relevant to our area of work or are local to business activities and operations and we encourage our employees to participate in fundraising events for our designated charities. A main focus of our charitable giving initiatives involves proactive engagement with sustainable development initiatives. ... We operate a Give As You Earn ('GAYE') Scheme in the UK. This enables employees to efficiently donate so money that would normally be given in tax goes to their chosen charity instead. A new GAYE scheme will be launched in the coming year, following the identification of a more cost-effective service provider. 2010 Targets: Launch the new Give as You Earn ('GAYE') Scheme in the UK to provide a more efficient mechanism for employees to give to their charity of choice.

Excerpts 9 and 10 are typical examples of CCID that signify no real commitment to developmental programmes. Most reports classified as unreal are very similar to this. No specific community involvement is disclosed rather the story tells of donations to charities of choice. There are no utterances of *being* or *doing*, that is, no evidence of awareness of specific need and no target and plan for future development is mentioned. Such companies only give detailed accounts of charities that benefited from their donations, thus creating an image bank of their philanthropic activities.

8.3.6 Section Summary

In this section of the chapter, the researcher argued that reality might better be construed when the texts of CCID are subject to semiotic analysis. Therefore, given the mythological nature of the reports, the researcher employed the Greimasian Canonical Narrative Schema in the analysis, while the semiotic square of veridiction was used as an evaluative tool to determine the ontological status of each semiotic act. Figure 8.3 below presents a graphical summary of the results. Most companies in the sample disclosed involvement in community projects and/or education sponsorship; only a few companies disclosed health and related activities and other community activities like sponsorship of sporting activities. Of those that reported involvement in community projects, only 10% could be said to be actually committed to community projects: most of the reports only gave details of their benevolence giving. Therefore, 40% had doubtful ontological status, while 45% of the reports were classified as unreal. Similarly of all reports on education and the arts only 15% could be classified as real, 35% as doubtful and 45% as unreal.

Figure 8. 3: Ontological Classification of CCID in Annual Reports.



	Community Programs	Education & the Art	Health & Related activities	Other Community activities
Real	10	15	10	0
Doubtful	40	35	5	30
Unreal	45	40	20	15
Nil Report	5	10	65	55

The results also revealed that while a particular community act might be *real* in one company another community act might not be *real* in that same company. For example while health and related activities were classified as *real* in Unilever, education and the arts were classified as *doubtful*. Again most educational sponsorships are tailored towards increasing the skill levels of employees and hence take more of an inward-looking approach. This implies that companies are more committed in certain areas of community activities, either reflecting their area of expertise or need, than they are in others. Therefore, to a very large extent, the findings in this section corroborate those of the quantitative section. Firstly, the fact that most reports fall into the *doubtful* and *unreal* ontological status is an indication that CCID in annual reports in most sampled companies cannot be said to reflect active involvement in community development. Similarly, just as the quantitative result revealed, most of the disclosures consist of general statements describing the companies' benevolence of donations to charities without actually meeting specific needs within the community of operation. Therefore the signification of reality cannot be construed.

8.4 Chapter Summary

Following the arguments of Macintosh *et al.* (2000) and Davison (2007, 2011) that economic-based theories have lost power in predicting social phenomena, this chapter explored the use of semiotics along with economic-based theory (signalling theory) to investigate the reality of CCID in annual reports. The quantitative investigation revealed that the coefficient produced from the regression of quality versus quantity of disclosure was nearly zero thus indicating that most of the disclosures consist of general statements rather than specifics hence most of the disclosures contain only a few verifiable projects and therefore do not qualify as a signal of actual community involvement. Similarly results from semiotic analysis suggests that signification of reality is either doubtful or unreal for most companies.

Chapter 9: Summary, Conclusions and Recommendations

9.1 Chapter Overview

The primary focus of this chapter is to provide a summary of the work done in this research and to point out potential opportunity for future research. The chapter is organised as follows: Section 9.2 presents an overview of the work done in this thesis; Section 9.3 summarizes the main findings of the study, while pointing out the explanatory power of multiple theorising in drawing conclusions from the findings; Section 9.4 discusses the potential implications of the findings for academic and accounting researchers and for management and the accounting profession; Section 9.5 reflects on the limitations and problems encountered in conducting the research while Section 9.6 identifies and points out further areas that could be explored in future research. Finally section 9.7 reflects on the initial objectives set at the beginning of the research.

9.2 General Overview of the Research work

This research sets out to investigate and achieve a number of research objectives. The research objectives developed from concerns about the authenticity and credibility of CCID in annual reports. The researcher is of the opinion that, the plethora of literature on the issue of voluntarily disclosing social information generally in annual reports is a pointer to the doubts about the credibility and genuineness of such disclosures. Yet the several decades of research on the subject has given rise to over thirty groups of theories in researching the subject (Thomson, 2007 cited in Gray *et al.*, 2010:2) without any meaningful outcome and consensus as to the most appropriate of them all. Nevertheless, given the original motive of CCI in the UK after the 2nd World War and the recent global demand for corporate social responsibility, the researcher was interested in investigating if CCI disclosure in annual reports is borne out of adherence to societal expectation with regards to CSR accountability or a true measure of corporate involvement in community development. Further, the paucity of literature on the subject of CCI disclosures was in itself a key motivation for the study. The stated objectives were as follows:

- To establish the motivations for CCID in annual reports

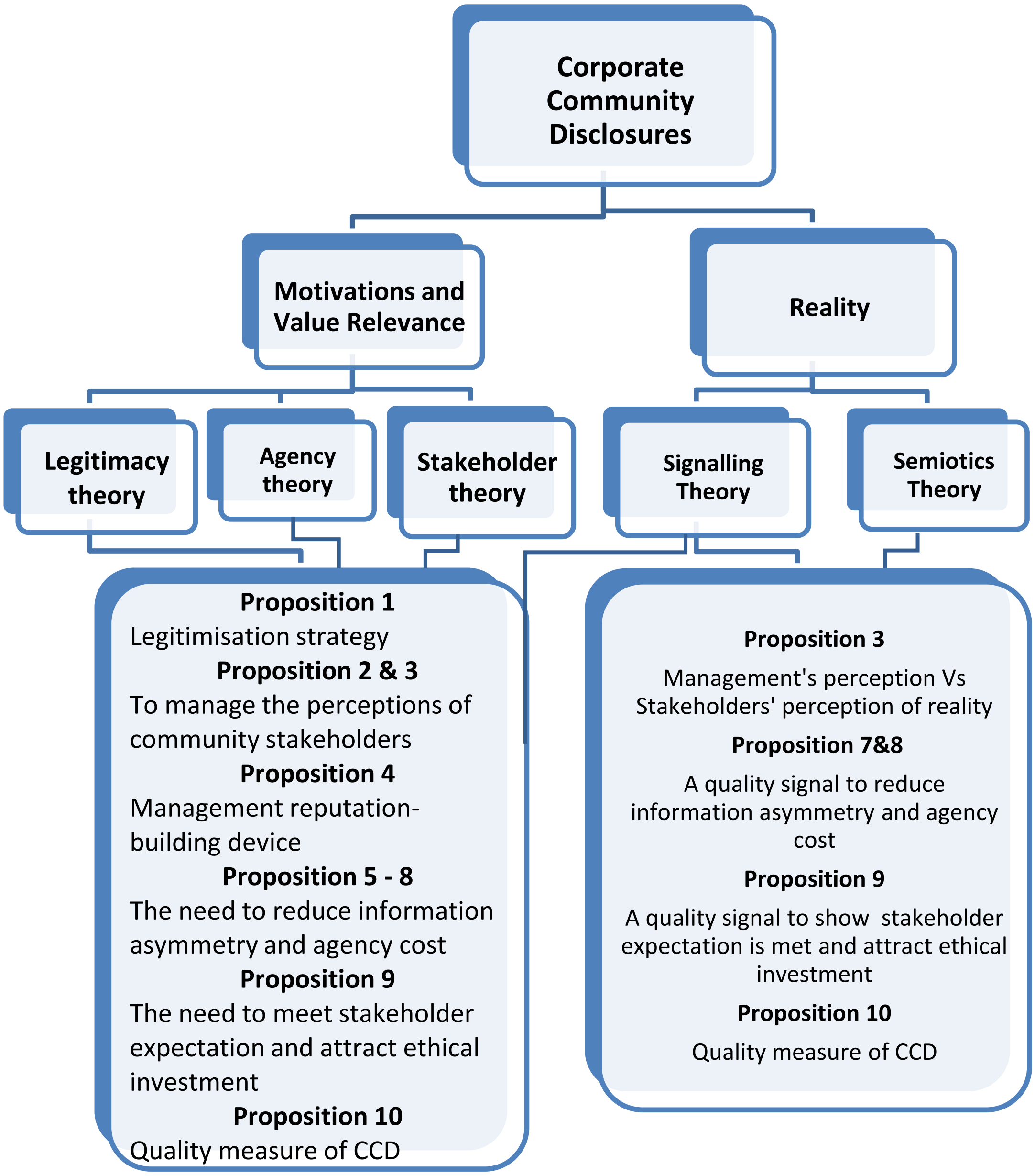
- To determine the effect of the demand for CSR on the disclosure of CCI in annual reports.
- To explore the value relevance and information content of CCID to investors
- To establish whether value maximization strategy can be enhanced by reporting on the community activities undertaken by the company
- To establish whether CCID in annual reports can be read and construed as true measures or quality signals of CCD
- To establish if there is really any active involvement in community development by corporation
- To establish the effectiveness of a multiple theoretical approach in providing insight into a contentious topic such as CSRD in general and CCID in particular and thus to enrich research in the subject area.

To achieve the set objectives stated above, the researcher divided the thesis into three main parts. The first part of the thesis consisted of Chapters 1 to 4 and provided an opportunity for the researcher to set the context for the study. The researcher used the first chapter to introduce the thesis and the other chapters generally, while highlighting the originality and the main contribution of the research to the body of knowledge. Chapters 2 to 4 focused on providing the background to the study by the review of empirical/theoretical literature and the development of hypotheses. Specifically a comprehensive definition of CCI was provided in Chapter 2 with a brief history of the development of the phenomena in the UK. In the same chapter, the researcher made an attempt to review extant literature on CCI disclosures in annual reports.

The review however revealed a conspicuous gap in literature as there was very little extant literature on the subject and only a few mentions of it in some CSRD studies, thus necessitating a general review of CSRD literature in order to put the current study into proper perspective. Relevant empirical issues in CSRD were identified and reviewed, while five main theories – legitimacy, stakeholder, agency, signalling and semiotic theories were also identified and reviewd in Chapter 3. Nevertheless the theories, which were examined from two perspectives – the motivation for, and the reality of, CCID, gave rise to a total of ten propositions. However in formulating the propositions, the researcher observed a somewhat overlapping relationship of the theories and this was inevitably reflected in the propositions deduced. Diagram 9.1

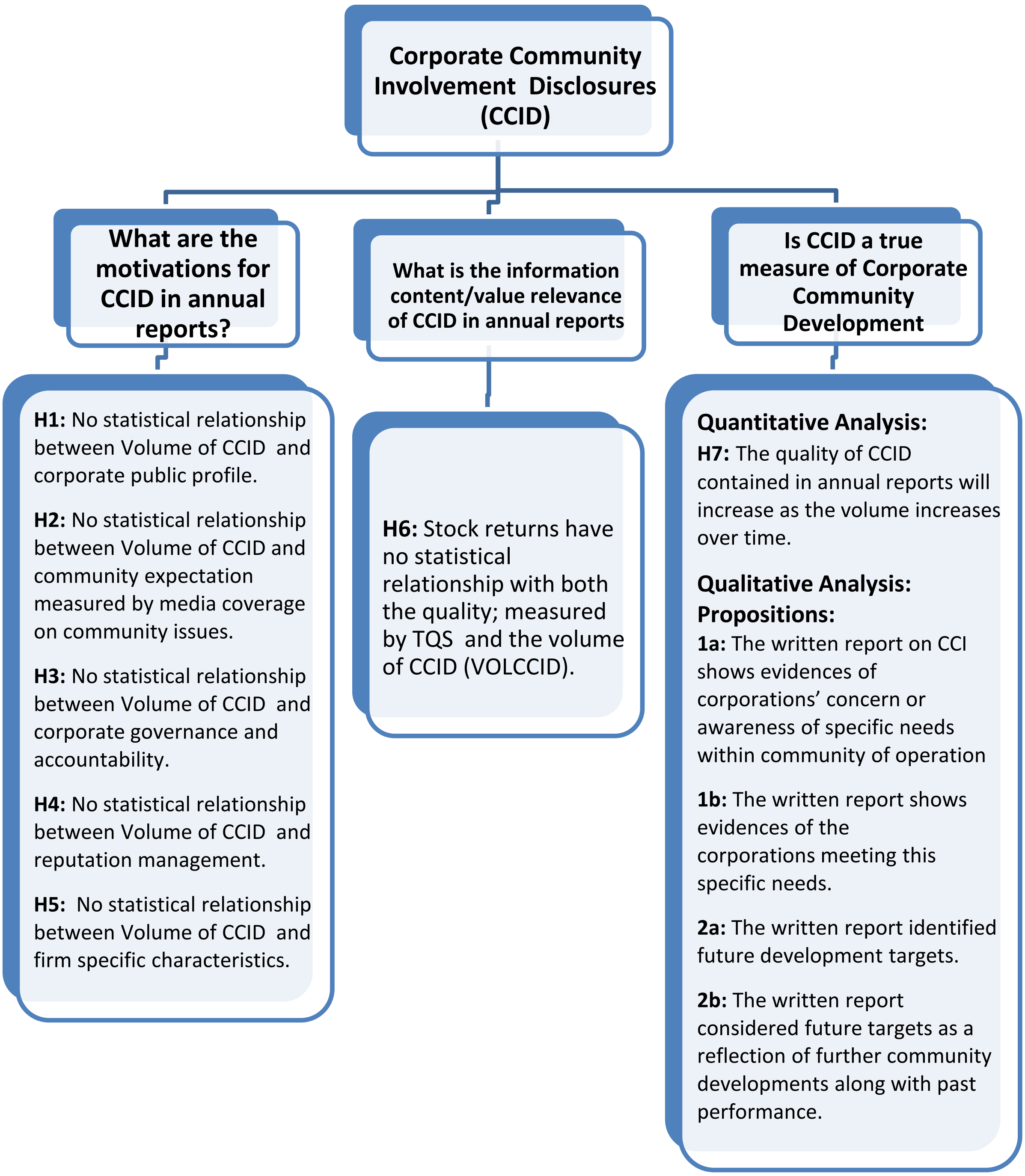
below summarizes the theories and illustrates the overlapping of the propositions deduced from the theories.

Figure 9. 1: Summary of theories and propositions



A glance at Figure 9.1 reveals that propositions 7 to 10 cut across all five theories, while propositions 2 and 4 relate to both the legitimacy and stakeholder theories and proposition 3 relates to the stakeholder, signalling and semiotics theories. Nevertheless the researcher extensively explored the inter-relationship of these theories in Chapter 4 to deconstruct the propositions into research objectives and subsequently into three main research questions. The research questions were then developed into testable hypotheses, used for the investigation. A total of seven main hypotheses were developed and tested in the study, while two pairs of propositions were developed and used for qualitative analysis. Figure 9.2 below, presents a summary of the research questions and the main hypotheses:

Figure 9. 2: Summary of research questions and hypotheses.



The second part of the thesis consists of only one chapter, which is Chapter 5. This chapter gave the researcher the opportunity to discuss in detail the methodology of the research, while justifying reasons for not adopting alternative methods. The philosophical standpoint as well as the quantitative/qualitative divide was thoroughly examined. The researcher was able to appreciate the fact that the choice of research methods depends, to a very large extent, on the objectives and nature of the research itself and the sensitivity of the research questions. Therefore given the nature of the first two research questions of this thesis, the researcher maintained the positivist stance in answering these questions. However, given the sensitivity of the third research question the researcher used the mixed method approach: quantitative and qualitative methods of analysis. The studies benefited from the use of both cross-sectional and longitudinal datasets (also called panel datasets) and were analysed using panel study models and regressions specifically designed for panel datasets.

The third part of the thesis consists of Chapters 6 to 8 and presents the empirical analyses and results for each of the research questions. The researcher extensively explored the legitimacy, stakeholder, agency and signalling theories in answering the first research question which is concerned with the determinants of CCID. The researcher tested a total of five main hypotheses with some of the hypotheses having sub-hypotheses. For the second research question, the researcher explored agency, stakeholder and signalling theories, to examine the relationship between stock returns and CCID. The main hypothesis was however split into 4 sub-hypotheses and tested. The third research question examined the reality of community disclosure in annual reports exploring specifically signalling and semiotics theories. The question was approached from two perspectives; the quantitative and literary perspective. For the quantitative analysis, one main hypothesis was tested, while the Greimasian narrative semiotics method of analysis was used for the qualitative analysis.

9.3 Findings and Conclusions

9.3.1 Main Findings

The main findings of this research work are summarised below:

First, the study provided strong evidence to support the fact that corporations that are vulnerable to public criticism based on their proximity to the local community disclose more community activities in their annual reports than others, thus supporting Campbell *et al.* (2006). The results produced a very high positive coefficient that is significant at the 1% level. This finding seemed to provide support for a legitimacy-theory based explanation for CCID, in that corporations that considered themselves vulnerable to criticism disclose more community activities in annual reports as a legitimising strategy (Parsons, 1960; Dowling and Pfeiffer, 1975).

Second, the study found that CCID in annual reports are rarely influenced by community expectation measured by print media coverage on community issues, which is consistent with the findings of Deegan *et al.* (2002). Therefore, contrary to the provisions of legitimacy theory, corporations' activities do not seem to be congruent with those of the community (Parsons, 1960; Dowling and Pfeiffer, 1975). This finding suggests that the motivation for community activities and disclosures is driven more by factors other than community expectation, or by the expectation of other groups of stakeholders other than the community-stakeholder group. It also suggests that the degree of salience accorded to the community-stakeholder group by management is very low (Mitchell *et al.*, 1997).

Third, the study provided evidence to show that the existence of standing committees, such as Disclosure, CSR and Standalone Risk committees, have more influence on management to disclose community activities than the board. In fact the study documented evidence in support of Vafeas' (1999) arguments that most monitoring tasks of the board have been delegated to the standing committees, and all that the board are left with is the coordination of standing committees' activities rather than the direct monitoring of management. Nevertheless, the findings provided support for agency-theory based argument for CCID in that management disclosed more information in response to monitoring mechanisms put in place by the principal (Jensen and Meckling, 1976; Fama and Jensen, 1983).

Fourth, the study provided evidence to show that the presence or activities of audit committees are substitutive to other CG control (Vafeas, 1999; Ho & Wong, 2001) and have a great influence on CCID. The findings are suggestive of the fact that companies with active audit committees might not be bothered to establish any other standing committee and that the activities of the board in such companies would probably be channelled elsewhere rather than on social/ community disclosures.

Fifth, there is strong evidence to show that reputation management is a key motivating factor to disclosing community activities in annual reports, thus supporting Tom (2002), Hasseldine *et al.* (2005) and Bebbington *et al.* (2008a&b). This evidence is based on the fact that community disclosure was found to have strong association with other reputation enhancement strategies such as investment in innovations through research and development. Similarly the global demand for CSRD was also found to be strongly associated with CCID. The findings also supported the agency theory explanation from the point of view of management reputation enhancement strategy and thus supported the findings of Beliveau *et al.* (1994) and Campbell (2000).

Sixth, the study found that company's listing age, profitability and leverage level are of little relevance when it comes to disclosing community involvement information in annual reports. This finding is consistent with Hackston and Milne (1996); Ho and Wong (2001); Hasseldine *et al.* (2005).

Seventh, the study provided evidence to show that community disclosure in annual reports might be used as some sort of market signal. The study showed strong indications that community disclosure possesses certain information or signals that may attract market reaction. This finding suggests that the market is likely to react to specific non-financial disclosures in annual reports in addition to financial disclosures which is consistent with earlier studies like Belkaoui (1976); Preston (1978); Anderson & Frankle (1980) and a more recent study by Becchetti *et al.* (2007). The findings provide support for a signalling theory explanation.

Eighth, the study also supported a stakeholder theory explanation. It provided evidence to show that CCID in annual reports gave investors a positive impression about disclosing corporations. Consequently, it may be used by management for investor-stakeholder management and reputation enhancement, thus is consistent with the findings of Neville *et al.* (2005) and Galbreath (2006).

Ninth, the study provided evidence that value maximization may be enhanced by management through disclosing community activities. This was based on the evidence that market performance was found to respond significantly to CCID.

Tenth, the study revealed that community involvement activities as disclosed in annual reports do not reflect active community involvement by corporations. This is evident from both the quantitative and the qualitative analysis of the reports. The quantitative investigation produced a coefficient of zero from the regression of quality versus quantity of disclosure, that is, more disclosures do not translate into better quality of disclosures which is consistent with the findings of Hasseldine *et al.* (2005). Accordingly, it indicated that most of the disclosures consist of general statements rather than specific and verifiable projects and therefore cannot be said to reflect active involvement in community development. The finding was corroborated by the qualitative analysis, which revealed that most reports fall into the *doubtful* and *unreal* ontological status, which is an indication that most of the disclosures consist of general statements describing the companies' benevolence of donations to charities without actually meeting specific needs within the community of operation.

Eleventh, the semiotic analysis also revealed that most community activities disclosed in annual reports show commitment to activities for which the corporations themselves are the main beneficiary. Corporations are usually more committed in certain areas of community activities that are either reflecting their area of expertise or need than they are in others. This is consistent with the observations of Hess *et al.* (2002). For example most education sponsorship was tailored towards increasing the skill levels of employees and hence more of an inward-looking approach.

Twelfth, contrary to the arguments by Macintosh *et al.* (2000) and Davison (2007, 2011) that economic-based theories have lost power in predicting social phenomena, this study revealed that economic-based theories are still very much in the business of predicting social phenomena. This is evident from the application of both economic-based theory – signalling theory – and literary based theory – Semiotics – to the investigation of the same research question: *Can CCID in annual reports be construed as true measures of CCD?* Both theoretical perspectives were not only very effective in providing answer to this question, but were both able to provide the same answer to the question. One key outcome of this investigation is that, for economic-based models to be effective in predicting social phenomenon the models will have to be well specified with the right sets of data.

9.3.2 Conclusions

The conclusions to be drawn from the findings above therefore, are twofold. Firstly, the summary of these findings is that community-stakeholder concern does not seem to be the real motivation for community involvement disclosure, but rather the target audience for such disclosure seemed to be the investor-stakeholder. This became apparent from the findings in Chapter 6, where the disclosure of community information was not to address the expectations of the local community *per se*, but rather a wider stakeholder group that is likely to offer immediate reward for such disclosures as evident in Chapter 7. This is consistent with signalling theory, which posits that the signaller expects some benefits from producing signals otherwise he may stop producing such signals (Bergstrom, 2008). Additionally the nature of the disclosures, most of which only tell of the benevolence of the company rather than meeting specific needs as revealed by semiotic analysis in Chapter 8, sub-section 8.3.5, is a pointer to the fact that communtiy concerns are not key motivations, but rather value maximisation.

Furthermore, community involvement information as disclosed in annual reports has some undertone of reputation/impression management like other CSR reports (Tom, 2002; Hasseldine *et al.*, 2005; Bebbington *et al.*, 2008a&b). The established strong relationship with public profile in the findings in Chapter 6, sub-section 6.5.2 of this thesis, and the findings of Campbell *et al.* (2006) provided evidence that the disclosure is an attempt to manage corporate reputation by management, thus supporting Bebbington *et al.* (2008a&b). This fact was further confirmed by the findings in Chapter 7 where investors responded significantly to CCID. Reputation management and good public image are necessary criteria to attract this stakeholder group as posited by signalling theory that a signal is a perceivable action which is intended to indicate a quality not otherwise perceivable about the signaller (Guilford and Dawkins, 1995;

Maynard-Smith & Harper, 2003). No wonder most of the reports are written in such a way as to show the benevolence of the company rather than give account of specific achievement of community developments (Chapter 8, sub-section 8.3.5).

The general conclusion drawn from the above summary therefore is that corporations intentionally disclose community activities in annual reports, these being the most authentic medium of communicating with investors, with a view to improving not only the corporate reputation of the company but also the market value. Specifically therefore, this thesis concludes that CCID in annual reports lack evidence of clear altruism as reputation/impression management is quite overt in the reports.

Secondly, it became clearer from the point of view of academic research that each of the theories if used in isolation will indeed be incomplete in the explanation of the CCID and/or CSRD phenomenon (Gray *et al.*, 2010). Rather the conclusions above were made clearer with the effectiveness of adopting multiple theoretical approaches in providing insight into a contentious topic as discussed in the findings above. The study was able to confirm the arguments of Bebbington *et al.* (2008a&b) for theoretical openness and the use of multiple theories in explaining voluntarily disclosing social phenomena by corporations; and those of Gray *et al.* (2010) that each of the theoretical lenses, on their own will fail to fully explain the phenomena as each of them is likely to be imperfect and incomplete. The use of multiple theories in this research has not only enriched our understanding of this phenomenon, but the intersections between the theories also provided us with more intellectual debate on the subject area (Gray *et al.*, 2010). Specifically therefore a second conclusion from the study is that, to achieve an enhanced knowledge of the phenomenon of social disclosure researchers require an enhanced theoretical framework with multiple theories.

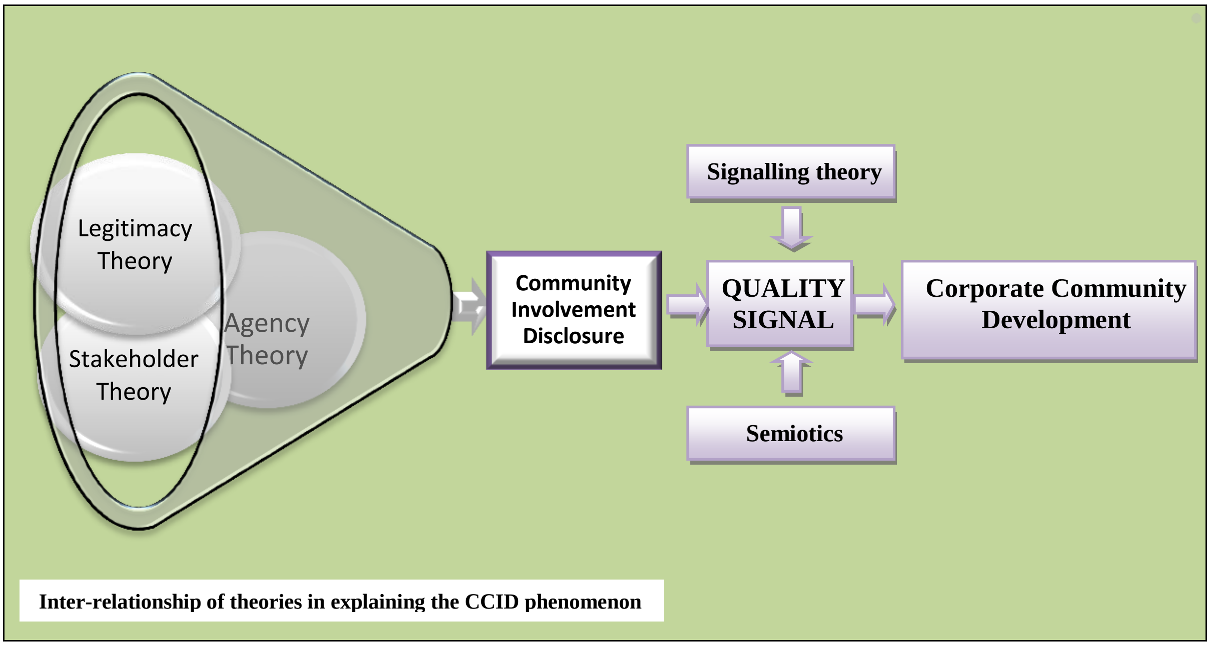
9.4 Implications of Findings

The analyses and findings in this research has some important implications for both accounting and other academic researchers. Similarly the findings have a number of imlications not only for managements as policy makers but also for the accounting practitioner and the accounting profession as a whole:

9.4.1 Implications for Researchers

In Chapter 3, Section 3.3.6, the researcher developed a framework establishing the link and explaining the interrelationship of the five theories employed in this thesis. A synthesis of these theories and how they combined to explain the real motives behind CCID is modelled in Figure 9.3 below. The figure shows CCID in annual reports as a product of the combined effect of legitimacy, stakeholder and agency theories, while its quality as a reflection of actual community involvement is made clearer with the use of signalling and semiotic analyses.

Figure 9. 3: The Meta-theory Model for CCID Investigation



Accordingly, the model showed that legitimacy, stakeholder and agency theories when employed as a meta-theory along with signalling and semiotics provided a more robust explanation for the real motives behind the CCI reporting phenomenon. The findings and conclusions from the study confirmed the effectiveness of this model as the study revealed that the legitimisation startegy of corporations was actually aimed at the investor-stakeholder group. The study was able to confirm that a single theoretical approach, as used in previous CSR studies, could not fully explain the CCID phenomenon. This was evident from the contradictions observed in Chapter 6, sub-sections 6.5.2 and 6.5.3 if interpreted in isolation. sub-sections 6.5.2 appeared to confirm the legitimacy-theory-based argument, while sub-section 6.5.3 does not.

Legitimacy theory posits that an implied social contract exists between the corporation and the community within which it operates and that legitimisation is achieved when the corporation's activities are congruent with those of the community (Parsons, 1960; Dowling and Pfeiffer, 1975). However, while the strong relationship obseved between public profile and CCID in sub-section 6.5.2 of Chapter 6 appeared to be an indication that CCID was a legitimisation strategy, legitimisation cannot be said to have been achieved given the evidence provided by sub-section 6.5.3, that the corporations' activities were not congruent with those of the community due to lack of relationship between community expectation and CCID.

However with the application of multiple theories as proposed in Figure 9.3 above, the researcher was able to unravel the inconsistencies of these two findings. The study showed that corporations report these activities for reasons other than legitimising their corporate activities within their community of operation. Firstly, the response of CCID to monitoring mechanism in Chapter 6, sub-section 6.5.4 was a pointer to the fact that the information are provided to redress the information asymmetry between corporations and their principals (the investors) to reduce the agency cost of equity as posited by agency theory (Jensen and Meckling, 1976) and thus, attract more investment (Fama and Jensen, 1983 and Jensen, 1983). Similarly the response of CCID to reputation enhancement variables in sub-section 6.5.5 suggested that the information might also have been disclosed in order to manage the public image of the corporation or for managerial reputation management.

Putting these into context, response of CCID to public profile in sub-section 6.5.2, can be interpreted more meaningfully as a further indication of reputation management bearing in mind that the investors are also members of the public, to be seen as a good corporate citizen by the public, in order to attract more investment rather than as a legitimisation process. This was further confirmed by market response to CCID in Chapter 7, suggesting that the disclosure might be a market signal employed by management to attract investors and/or for the purpose of managing the investor-stakeholder group. Further evidence to support this view was obtained in Chapter 8 where the stories were found to consist of mere general statements lacking the quality it requires to qualify as evidence of active invovlement in community development. Both the qualitative and the quantitative analyses of the text by the researcher confirmed this view, thus confirming why CCID failed to respond to community expectation in Chapter 6, sub-section 6.5.3.

The implication of this for academic scholars generally, and for accounting researchers in particular, is that, to obtain a more robust and intellectual analysis and accurate interpretation of accounting and accountability statements such as CCID and other social and environmental disclosures, there is the need for an enhanced theoretical approach such as was used in this thesis. Therefore, the model used in this thesis as well as the conclusions from the study could provide accounting scholars with a guide to developing a corporate disclosure model of analysis that could be characterized of multiple theoretical approach and thus enhance our understanding of specific corporate disclosures in the annual reports. This however, has far-reaching implications for accountants as preparers of annual reports, their external auditors, the accounting theorists and the accounting profession as a whole. These are discussed further in subsequent sections.

9.4.2 Implications for Accounting Practitioners

Firstly for accountants as preparers of annual reports, it is important that the annual reports as a medium of communication are as informative as possible. It is evident from the findings in Chapter 8 section 8.3 that the CCI information disclosed in annual reports is capable of being interpreted in different ways, since the users are diverse and the document is produced at a different time to when received by the recipients. Therefore, since communication remains central to the production of annual reports, it is important that accountants adopt a pragmatic approach to disclosure practices in order to achieve effective communication. The emphasis should be shifted from managements' intention, to the sense the recipient is likely to make out of the information disclosed.

For example a broader implication of the findings in Chapter 8 is that the information on CCI may indeed be misinterpreted altogether if the right lexical structures are not used (Jain, 1973; Belkaoui, 1980). This reinforces the importance of the professional accountants getting involved with the preparation of such reports in order to ensure its quality and reliability. Going by the principles and practice of accounting, accounting information is true when it correspond to the characteristics of "neutrality, representational faithfulness and completeness" (Belkaoui, 2004:231). In other words accountants are expected to present accounting information free of measurement and measurer bias. Therefore, since reporting social activities, like financial reporting, entails the generation, analysis, reporting and assurance of robust and accurate information, the professional accountant has a role to play in understanding the concept of social activities and the associated challenges and how this could be linked to achieving the long-term growth in shareholder value. To this end, it is important that the accountant get involved in the design of guidelines for the collection and analysis of the data used for social disclosure so as to ensure the 'truth and fairness' of the information disclosed.

To ensure the truth and fairness of social information, like financial information, it is the responsibility of the accountant as the preparer of annual reports to ensure that the contents of the social report is of a high communicative quality such that stakeholders' expectations concerning community development for instance, could be transparently established from the reports. For example this could not be clearly established from most reports analysed in Chapter 8, section 8.3. A transparent and high-quality report would contain specific and verifiable hard to mimic projects (Toms, 2002; Hasseldine *et al.*, 2005). In addition such a report should also include the open discussion of weaknesses, challenges in achieving planned objectives, and the corresponding strategies, policies, and mechanisms for dealing with these challenges (Gebauer and Hoffmann, 2009). Since the primary aim of a report is to inform and influence behaviour, the contents of the report must be capable of being interpreted by the recipient in such a way as to have the intended effect desired by the producer.

It follows that to achieve reliability, the professional accountant has a role to play in addressing a number of issue when preparing a CCI or other social reports; among which are the information requirement of stakeholders (stakeholders' expectation), the signal such information is sending out, the preferred reporting format – qualitative, quantitative, photographic or a mixture of all –, the effect the presentation format may have on the signal, the way the signal is being received and interpreted by the stakeholders and the effect of such signals or information on the behaviour of the stakeholders. This will not only encourage engagement with target audience but also promote dialogue and effective dissemination of information.

Furthermore, to ensure consistency in reporting, it is the responsibility of the professional accountant to advise management to embed social issues like community development within strategic decision making process; this will enable the alignment of the reporting cycles with that of the financial reporting process. In addition accountants as preparers of annual reports should identify the strategic risk associated with non-performance in such issues and report on the mitigation plans. The accountant should be able to articulate adequately to users of annual reports, how their organisation is strategically managing important social issues such as community involvement. Nevertheless, the commentaries of such report should focus more on value creation rather than on compliance and risk management.

Secondly for external auditors who provide verification and assurance statements over the completeness and accuracy of the content of annual reports, the findings in this thesis implies that the credibility of social and environmental reports should be improved upon by increasing the rigour of the assurance process. The partial relationship documented in Chapter 8 section 8.2, between the quality and volume of CCID is a pointer to the fact that auditors should extend their audit work to cover social and environmental issues. The researcher proposes that the independent auditors' report should express audit opinion on the truth and fairness of the annual reports viewed as a whole and not only on the financial information since the annual reports encompass both financial and narrative information. It is only then that the FRC can achieve the views expressed in their discussion paper (FRC, 2010a: 7&12) that *"the Annual Report should communicate high quality ... narrative and financial information to the market"* (p.7); and that *"investors need to have confidence in the integrity of the narrative and financial information they receive in the Annual Report*" (p.12).

It is contradicting how the FRC recognises the importance of the investors' confidence on the quality of narrative information and yet do not believe that the auditor's report should be extended to cover social and environmental reporting (FRC, 2010b:17). Based on the findings in this research, the researcher strongly implore the FRC to reconsider its position on this because the relationship established between stock returns and CCID reported in Chapters 7 and the fact that most CCID reports semiotically analysed in Chapter 8 falls into the *unreal* ontological status, reinforces the fact that the

FRC, ASB and the APB all have roles to play in ensuring that proper audit work is extended to the narrative contents of the annual reports if they must achieve their objectives of meeting the ever changing needs of users of annual reports. For example in the case of CCID, audit work could cover such areas as the physical verification of community activities claimed in the reports and checking of the process of gathering the information disclosed. Although this may require enhancing the training, skills and experience of auditors, as identified in the FRC's discussion paper, the researcher believes that it is worth the investment if only to achieve investors' confidence in the integrity of the annual reports.

9.4.3 Implications for Accounting theorists and the Accounting Profession

The financial statement as it appears in the annual reports is a reflection of the theoretical foundation of accounting which consists of the accounting principles, concepts and conventions and the conformity with generally accepted accounting principles (GAAP). However the information requirements of stakeholders have since gone beyond the presentation of just the financial statements alone to include other non-financial performance such as social and environmental performance. These facts are confirmed by the findings in this study, thus pointing to an urgent need for the modification or improvement of the theoretical structure of accounting to accommodate the new trend in reporting.

Since reporting has gone beyond financial and economic data only, to include social and environmental data, the truth and fairness of the annual reports can only be guaranteed when the theoretical structure underpinning its preparation is expanded to accommodate these other aspects of reporting. Belkaoui (2004) pointed out that the current theoretical structure has in itself created unfairness in disclosure practices. The findings of this thesis in Chapter 8 section 8.3 could be said to confirm Belkaoui's concerns; lack of an accounting-based theory in the reporting of social information resulted in a lot of inconsistencies in reporting CCID across companies and from one year to another. The implication of this for accounting theorists, is that accounting concepts and conventions which hitherto were tailored towards measuring only economic data should be extended to measuring and communicating social and environmental data.

This finding also identifies the urgent need for the inputs of the standard setters – the IASB and the FASB – to issue a social accounting or sustainability accounting standard in order to ensure standardisation in the quality and quantity of the data disclosed in the annual reports and also to encourage the integration of financial and sustainability reporting. This should not be left in the hands of private organisations and other non-accounting bodies such as the Global Reporting Initiative (GRI), the Institute of Social and Ethical AccountAbility, the UN Global Compact, the OECD Guidelines, ISO 26000 and other frameworks as is currently the case. Since sustainability reporting falls under the subject of accountability, there is the need for the accounting profession to get involved.

Furthermore, with investors demanding for more social and community disclosures in the annual reports as suggested by the findings in Chapter 7 of this thesis, there is an urgent need for a more comprehensive reporting framework that would show the link between financial performance and social and community initiatives, thus providing investors with comprehensive information to aid decision making. The reporting format could be modelled after the financial reporting format in such a way as to allow for comparisons with other years. For example the five year financial summary format could be adopted for sustainability reporting. This will favour continuity of the specific activity involved in and also allow for the predictability of disclosure.

9.4.4 Implications for Management

The findings are quite significant and very important to management as policy makers in organisations. For instance the CCID/Stock returns association established in Chapter 7 implies that CCID in annual reports plays a much more significant role than merely reporting on CSR adherence. Rather it plays an important role in the management of the corporation/investor-stakeholder relationship. It provides management with the opportunity to create positive impressions about their corporations to the investors and thus attract more investment and reduce the agency cost of equity.

Furthermore, management may employ the disclosure of community activities in annual reports as a strategic management tool for value maximisation. As market signals – evident in Chapter 7, it may be employed by management to raise long-term funds from the financial market. The financial market as a powerful source of raising long term corporate finance plays an important role in maintaining corporate growth and long-term financial stability and sustainability; hence ability to attract investors leads to greater opportunity for growth and expansion, improved market performance and hence firm value.

In addition, the link between responses to CG measures and reputation management in Chapter 6 could be exploited by management to encourage better quality disclosure, so that meaningful information about a company's community involvement could be required to be provided. This may in turn develop society's interest in these higher quality disclosures so that aspects of accountability and the social contract can be established. Furthermore a move towards mandatory disclosure, as advocated by Adams (2004) and Cooper and Owen (2007), may enhance governance mechanisms and thus, in turn, enhance the company's motivation to be active participants in their communities.

Finally, it appears that, at the moment, general disclosures of community involvement are sufficient to appease the public and investors; however, if the demand for such information increases, so will the demand for quality disclosure. Demand for CSRD is not static; society looks for information that fits with the times and the context in which current occurrences take place. For instance, Hess *et al*. (2002:110) refer to the "*new wave of corporate community initiatives"* as a response to the 9/11 disaster in 2001, where concerns moved towards what contributions business organisations were making to their local communities. If this were to intensify, managers would be subject to greater pressure to disclose active participation in community development and would, therefore, be responsible for developing reporting and disclosure mechanisms that would capture the specific and detailed activities in which their organisations were engaged in.

9.5 Limitations and Problems

As with most studies of this nature, the research is not without its limitations; the major limitations of this research to the best of the researcher's knowledge are as follows:

First, a major limitation is the size of the sample. This was due to the longitudinal nature of the study, which requires that the researcher had access to the annual reports and other companies' data from DataStream for all the companies in the sample for the eleven year period covering 1999 to 2009. This necessitated the removal of all companies that did not meet this criterion. Similarly, companies not listed on the LSE before 1999 were excluded from the sample. This particular criterion reduced the sample size drastically thus leaving the researcher with a total of 803 observations from 73 companies. However during the rigorous analysis to which the data were subjected, missing data and cases of extreme outliers further reduced the data to 798 observations for the first and third investigation, while the sample size reduced to 722 for the second investigation due to the calculation of stock returns and the inclusion of one-year lagged value in the variables. Additionally the sample is limited to UK FTSE 350 companies and so application of the findings to all companies in the UK or other countries requires caution.

Second, the proxies used for all control variables were based on previous studies. Although the researcher believes in these proxies as valid measures of the various construct, the researcher admit that the proxies are not actual measures of these phenomena and therefore may not absolutely reflect the true features of the phenomena they attempt to capture. In addition these variables were defined based on previous studies and may therefore be biased.

Third, the researcher took a quantitative approach to disclosure measurement using content analysis. Although reasonable care was taken to ensure a well specified decision rule, the measurements employed in this thesis especially for quality measures may not be free from bias as only one coder was involved in the coding process. Therefore one cannot rule out the fact that the personal belief of the researcher may influence some decision rules and hence the objectivity of the measurement. In addition the inconsistency, with which social disclosure definitions are characterized, may prevent reproducibility by other researchers.

Fourth, the researcher recognised the fact that other internal factors such as ownership structure, ethical orientation and qualification of management staff could also have influence on the quality and extent of CCID, but these factors were not examined due to non-availability of data. Nevertheless, the researcher is quite confident that the panel nature of the dataset is capable of controlling for the effect of these variables as well as any other omissions.

Fifth, the application of multiple theories was limited to five theories that have been applied in isolation by scholars in previous studies, as an explicator for CSRD phenomena generally. However as CCID has a developmental undertone unique to the community of operation, an entirely new set of theory not previously considered in CSRD literature may also be relevant.

Sixth, the semiotic method of analysis has a major limitation of being completely arbitrary, although the process of analysis is systematic and sufficiently rigorous. Its limitation lies in the fact that the criteria used in the analysis, for instance, the propositions formulated, are highly subjective and totally dependent on the researchers intuition, hence the findings is less able to be replicated or generalized as different researchers may arrive at different conclusions even with the same information. To this end the researcher makes no claim other than the findings of the semiotic analysis in this study may be indicative of what is reported in this thesis. However the findings are sufficient justification of the need for a ‘linguistic turn’ in drawing meanings from corporate disclosures as argued by Macintosh and Baker (2002:185).

Finally the data collection was limited to annual reports only; other means of communication with the investor-stakeholder group include company websites, standalone CSR reports, press releases and other corporate publications. However these were not used in this research as they are not sent out on an annual basis.

Overall, the researcher believes that the framework developed in this research was quite effective and may be applied to other social research.

9.6 Suggestions for Future Research

First, future research may consider inter-country comparisons especially between the developed and developing economy. As most communities in developing economies, as the name implies, are still developing, it may be that CCID narratives by corporations in such economies will be more altruistic than they are in the current study.

Second, future research on developed economy such as the UK, Canada and the US may look at the effect of government regulations on CCID and other social disclosures as new regulations are beginning to spring up regarding social disclosures in these countries. For instance in the UK, the Companies Act 2006 recently requires listed companies to mention in the director's report the impact of their operations on their environment and community. As the Act was not explicit on the reporting framework and the legal implication for non-disclosure, the disclosure remained voluntary in the annual reports of UK companies up till the time of conducting this research. As guidelines are published in the future regarding the implementation of this act, future study may compare disclosure practices before and after full implementation of such regulations.

Third, other internal factors such as ownership structure, ethical orientation and qualification of management staff could be controlled for to check whether they could also have an influence on the quality and extent of CCID and also to examine whether the results of this current investigation would still be sustained if these variables were measured and controlled for.

Fourth, future research may also consider adopting a measure of quality as suggested by Botosan (2004). Botosan suggested that, the guidelines provided by the FASB and IASB on the usefulness of financial information might be a better measure of quality (see Chapter 2, sub-section 2.4.3 for discussion on this). Botosan suggested that quality could be defined as: Quality = f (understandability, relevance, reliability, comparability).

Fifth, as semiotics analysis interprets the text of the narratives from the perspectives of the targeted audience, it would be interesting to see whether different results would be obtained if the relevant corporation's personnel (authors) were interviewed directly to gain further insights into the original intention and motives of the disclosures. The only limitation to this may be access to these personnel.

Sixth, this research may be extended by analysing other corporate communication media such as standalone CSR/community reports, press releases and information disclosed on corporate websites. This might give a more comprehensive view of CCI activities in general and broaden our knowledge of why corporations get involved with their communities, thus giving us a better understanding of its disclosure in annual reports.

Seventh, future research may consider exploring the market response to CCID further to test the efficiency of the market in absorbing this piece of information and thus see if any excess return arises from it as with financial information. However such study will have to use an event study approach such that daily data before and after the announcement day are observed.

Eighth, the model developed in this research can be applied to other social research in general and corporate disclosures in particular. The model may be extended to accommodate new theories or other theories that have been considered previously in isolation for CSRD explanation. The identified benefits of models with such enhanced theoretical framework include an opportunity to perform comprehensive and robust analyses of the subject matter and the fact that it allows for intellectual reasoning and discussion of the results.

Ninth, it is instructive to note that in addition to the enhanced theoretical framework used in this research, the use of a panel dataset was highly instrumental to the success of the investigation; hence the researcher strongly recommends its use in future research. A panel datasets consist of both longitudinal and cross-sectional dataset, which lend itself well to the use of advanced parametric techniques – Panel data regression models in order to ensure an enriched and robust analysis. These models have special features that are specifically designed to control for unobserved variables. Unobserved variables could either be those that are constant over time such as cultural orientation or the geographical location of the company or those that vary over time such as ethical values or management quality that could also affect CCID, which could otherwise be omitted if a single cross-section data or solely time series data was used. The omission of such variables could lead to heterogeneity bias and the problem of endogeneity and could render the results of any analysis made with such datasets invalid. However the use of panel datasets will correct these anomalies.

The beauty of a panel dataset is that such variables will be captured by the very nature of the dataset and would thus be accounted for. Although as discussed in Chapter 5, it is a rather slow research technique and very expensive, its advantages far outweigh its disadvantages. Lazarsfeld (1948) noted that the panel approach has very promising features for a fuller understanding of human behaviour. The advantage of controlling for the effect of unobserved heterogeneity bias and the problem of endogeneity is that the regression analysis from such dataset would always yield estimates that are BLUE even with the presence of either heteroskedasticity or serial correlation in the errors (Halaby, 2004). This was demostrated in Chapter 6 where the datasets were subjected to pooled OLS regression and it was evident that the estimates obtained with OLS were inflated due to the presence of heteroskedasticity and serial correlation in the errors.

Finally, the researcher would be happy to explore the model and the use of panel datasets further probably as a post-doctoral research or research paper for onward publication in reputable journal. The follow up research will build on the current outcome and could investigate the importance of a more comprehensive reporting framework that would show the long-term link between financial performance and social and community initiatives as a contribution to the on-going debate for the development of an Integrated Reporting framework (IR). The IR refers to the integration of a company's financial and non-financial information in the same report in such a way as to show the relationship between its financial and non-financial performance. The researcher believes that the outcome of the follow-up study should broaden our understanding of the long-term value relevance of non-financial information like CCID to investors. The study could also help to establish whether an integrated reporting framework could help with a better dissemination of such information and thus, provide investors with comprehensive information to aid long-term investment decision-making. The proposed study might be able to offer valuable recommendation to the International Integrated Reporting Committee (IIRC) – who recently issued a discussion paper on the subject – as to the endorsement or otherwise of an IR framework.

Furthermore, in addition to the research paper – Yekini & Jallow (2012) – already accepted to be published in volume 3 issue 1 of the Sustainability, Accounting, Management and Policy Journal, the researcher would be happy to disseminate more of the findings of this research to appropriate quarters where it might be useful, using reputable accounting academic and practitioners' journals and organised events such as academic and practitioner conferences organised both locally and internationally and through other media such as poster presentation and print media.

9.7 A Final Note on the Initial Research Objectives

In Chapter 1 of this thesis, the researcher stated that the research was to investigate and achieve seven research objectives: the first was to establish the motivations for CCID in annual reports, while the second was to determine the effect of the demand for CSR on the disclosure of CCI in annual reports. These research objectives have been met. In Chapter 6 of this thesis, the researcher rigorously explored the legitimacy, stakeholder and agency theories and tested five main hypotheses to investigate these objectives. The findings of the investigation confirmed that community concern was not a key motivation for community involvement disclosure, but rather the disclosures has some undertone of reputation/impression management like other CSR reports. See findings 1 – 6 of section 9.3.1 above for details. A strong positively significant association was also found between CCID and other CSR disclosures, indicating that the global demand for CSR has an effect on CCID.

The third and fourth research objectives were to explore the value relevance/information content of CCID to investors and to establish whether value maximization strategy can be enhanced by reporting on the community activities undertaken by the company. These research objectives have been met. The two objectives were explored extensively in Chapter 7 by testing hypothesis six and the sub-hypotheses. The findings suggested that CCID has information content and therefore attracts market reaction, thus indicating that management may employ CCID as a value maximization strategy. See findings 7 – 9 of section 9.3.1 above for details.

The fifth research objectives was to establish whether CCID in annual reports can be read and construed as true measures or quality signals of CCD, while the sixth was to establish if there is really any active involvement in community development by corporation. These objectives were met in Chapter 8, where the researcher employed both the quantitative and qualitative methods of analysis. The findings from the study revealed that CCID do not reflect active community involvement by corporations. See findings 10 & 11 of section 9.3.1 above for details.

Overall the researcher is quite pleased that the seventh objective, which was to establish the effectiveness of a multiple theoretical approach in providing insight into the subject area – CCID, has been met given that the use of multiple theories in this research has largely enriched our understanding of the CCID phenomenon. It provided the researcher with the opportunity for an intellectual discussion of the subject and thus provided a richer insight of the real motives behind the CCID disclosures thus confirming Gray *et al.*’s (2010:39) assertion, that the application of multiple theoretical approach “*may lead to a more intelligent debate*” of the subject area.

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Appendices

Appendix 1: Companies included in the final sample

1	3i Group	38	Marks & Spencer Group
2	Amec	39	Melrose Resources
3	Antofagasta	40	National Grid
4	ARM Holdings	41	Pace
5	AstraZeneca	42	Pearson
6	Aveva Group	43	Pennon
7	Barclays	44	Premier Oil
8	BBA Aviation	45	Provident Financial
9	BHP	46	Prudential
10	BP	47	Rio Tinto
11	British Airways	48	Rolls-Royce Group
12	British American Tobacco	49	RSA Insurance Group
13	BT GROUP	50	SABMiller
14	BTG	51	Severn Trent
15	Cairn Energy	52	Shire
16	Carillion	53	Smith & Nephew
17	Centrica	54	Soco International
18	Computacenter	55	Spectris
19	Cookson Group	56	SSL International
20	Dairy Crest Group	57	Tate & Lyle
21	Diageo	58	Tesco
22	Dimension Data Holdings	59	Tomkins
23	Domino's Pizza	60	Unilever
24	Fidessa	61	United Utilities Group
25	FirstGroup	62	Vodafone Group
26	GlaxoSmithKline	63	Whitbread
27	Helical Bar	64	WPP
28	Homeserve	65	Aquarius Platinum
29	Imagination Technologies Group	66	Cadbury
30	IMI	67	Carphone Warehouse Group
31	Imperial Tobacco Group	68	COLT Telecom Group SA
32	International Power	69	Genus
33	Invensys	70	Inmarsat
34	Johnson Matthey PLC	71	Morgan Sindall
35	Liberty International	72	Northumbrian Water Group
36	Lloyds Banking Group	73	Robert Wiseman Dairies
37	Lonmin		

Appendix 2: Coding Scheme for Pilot study 1

1. Company Name

2. Year of Report

3. Company Characteristics
   a) Industrial Groupings
      i) Group1 - Oil & Gas/ Basic Materials/ Industrials
      ii) Group2 - Consumer goods/ Health care
      iii) Group3 - Telecommunications/ Utilities/ Technology
      iv) Group4 - Consumer services/ Financials
   b) Size
      i) Market Capitalisation
      ii) Turnover
      iii) Capital Employed
      iv) Total Employee
   c) Profitability
      i) ROA
      ii) ROE

4. Volume per Theme of Community Disclosure (Sentence count)
   a) Community activities
   b) Health and related activities
   c) Education and the arts
   d) Other community activity disclosures
   e) Total community Disclosure

5. Form of Disclosure
   a) Financial
   b) Physical
   c) Narrative
   d) Total

6. Location
   a) Chairman's Statement
   b) Directors Report
   c) Review of the Year
   d) CSR Section
   e) Other Sections
   f) Stand Alone Report

Adapted from: (Ingram and Frazier, 1980; Roberts 1992; Gray, *et al.*. 1995b; Deegan and Gordon 1996; Hackston and Milne 1996)

Appendix 3: Improved Coding Scheme for Pilot Study 2

1. Company Name

2. Year of Report

3. Company Characteristics
   a) Industrial Groupings
      i) High Public Profile - Consumer goods/ Health care/ Consumer services/ Financials / Telecommunications
      ii) Low Public Profile - Oil & Gas/ Basic Materials/ Industrials/Utilities/ Technology
   b) Size - Turnover

4. Volume per Theme of Community Disclosure – Words
   a) Community activities
   b) Health and related activities
   c) Education and the arts
   d) Other community activity disclosures
   e) Total community Disclosure

5. Volume of other Social disclosures – Words

6. Form of Community Disclosure (Measures Quality -1)
   a) Specific mention of activities
   b) Financial
   c) Physical
   d) Narrative
   e) Total

7. Location of Community Disclosure (Measure of quality -2)
   a) Chairman's Statement
   b) Directors Report
   c) Review of the Year
   d) CSR Section
   e) Other Sections
   f) Stand Alone Report

Appendix 4: Decision Rules for Pilot Studies

1. **Any specific mention of any category of CCID**

2. **Other inclusions**
   - Any statement where community and/or social involvement is mentioned.
   - All community sponsorship activities as stated in (1) above no matter how much it is advertising.
   - Any sponsorship of Schools, health, arts and sporting activities
   - Any employee involvement with above if company support is apparent
   - Business-in-the-community award, secondment of staff

3. **Exclusions**
   - All disclosures must be specifically stated, they cannot be implied
   - Donations to charities are not included since this is a mandatory disclosure
   - Statements referring to activities of other companies within the group are not considered
   - Any statement indicating that the company's community activity is in compliance with governmental regulatory standards is not considered

4. **Types of disclosure**
   - A Statement is classified as “Financial” if it expresses the companies community activities in monetary terms with or without tables
   - A Statement is classified as “Narrative” if it expresses the companies community activities in qualitative terms
   - Disclosure is physical where actual picture of the community activity is displayed to support narrative or financial disclosure
   - If any sentence has more than one possible classification, the sentence is classified as the activity most emphasized in the sentence

Appendix 5: List of UK National and Regional News Papers

UK NATIONALS:

Content-Summary: The UK Nationals contains 16 full-text national newspapers distributed throughout the UK. However, only UK National News Papers with relevant articles on CSR and CCI issues, during the period under investigation, are listed below.

1. Daily Mail and Mail on Sunday
2. Independent on Sunday
3. Morning Star
4. The Business
5. The Daily Telegraph (London)
6. The Express
7. The Guardian (London)
8. The Independent (London)
9. The Observer
10. The Sunday Express
11. The Sunday Telegraph (London)
12. The Sunday Times (London)
13. The Times (London)

UK Regional Publications:

Content-Summary: The UK Regional publications contain all the regional sources published in the UK held by LexisNexis. However, only UK Regional publications with relevant articles on CSR and CCI issues, during the period under investigation are listed below

1. Aberdeen Evening Express
2. Aberdeen Press & Journal
3. Bath Chronicle
4. Belfast News Letter
5. Berwick Advertiser
6. Belfast Telegraph
7. Birmingham Evening Mail
8. Birmingham Post
9. Bristol Evening Post
10. Business and Finance
11. Carmarthen Journal
12. Chester Chronicle
13. Cornish Guardian
14. Coventry Evening Telegraph
15. Croydon Advertiser
16. Daily Post (Liverpool)
17. Daily Record
18. Derby Evening Telegraph
19. Evening Chronicle (Newcastle)
20. Evening Gazette
21. Evening Herald (Plymouth)
22. Evening News (Edinburgh)
23. Evening Times (Glasgow)
24. Express & Echo (Exeter)
25. Fife Free Press
26. Fosse Way Magazine
27. Gloucestershire Echo
28. Grimsby Evening Telegraph
29. Hertfordshire Mercury
30. Huddersfield Daily Examiner

UK Regional Publications Cont'd:

31. Hull Daily Mail
32. Irish News
33. Kent and Sussex Courier
34. Kidderminster Shuttle
35. Leicester Mercury
36. Liverpool Daily Echo
37. Loughborough Echo
38. Manchester Evening News
39. Melton Times
40. Metro (UK)
41. Mid Devon Gazette
42. Middlesbrough Evening Gazette
43. North Devon Journal
44. Nottingham Evening Post
45. Peterborough Evening Telegraph
46. Retford Times series
47. Scarborough Evening News
48. Scotland on Sunday
49. Scunthorpe Evening Telegraph
50. South Wales Echo
51. South Wales Evening Post
52. Southern Reporter
53. Sunday Business
54. The Cornishman
55. The Evening Standard (London)
56. The Gloucester Citizen
57. The Herald (Glasgow)
58. The Independent - Business & Money
59. The Journal (Newcastle, UK)
60. The Northern Echo
61. The Scotsman
62. The Sentinel (Stoke)
63. The Sunday Herald
64. The Sunderland Echo
65. The Times Educational Supplement
66. The Times Higher Education Supplement
67. The Warsaw Voice
68. The West Briton
69. The Western Mail
70. This is Brighton & Hove
71. This is Essex
72. This is Hampshire
73. This is Local London
74. This is NorthEast
75. Watford Observer
76. Western Daily Press
77. Western Gazette series
78. Western Morning News (Plymouth)
79. Western People
80. Yeovil Express
81. Yorkshire Evening Post
82. Yorkshire Post

Appendix 6: Correlation Matrix of IVs – Treatment for Multicollinearity (Chapter 6: 6.6.1)

Independent Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. PROFILE	1.000																	
2. Ln-COMNEWS	0.003	1.000																
3. BODMET	0.049	0.084	1.000															
4. BODCOMP	0.119	0.075	-0.00	1.000														
5. BODSIZ	0.235	0.022	0.047	0.183	1.000													
6. DISCOM	0.173	0.051	0.141	0.267	0.333	1.000												
7. RISKCOM	-0.13	0.006	0.037	0.093	0.037	0.148	1.000											
8. CSRCOM	0.096	0.034	0.102	0.219	0.243	0.340	0.080	1.000										
9. EXTAUD	0.003	-0.01	0.110	0.146	0.125	0.129	0.131	0.134	1.000									
10. Ln-OCSRD	0.133	0.076	0.194	0.313	0.310	0.256	0.150	0.294	0.387	1.000								
11. Ln-CSRNews	0.026	0.076	0.080	0.150	0.047	0.104	0.110	0.118	0.153	0.246	1.000							
12. R&D	-0.04	0.051	0.040	0.154	0.116	0.241	0.020	0.212	0.181	0.291	-0.03	1.000						
13. Ln-TURN	0.295	0.033	0.214	0.219	0.644	0.342	0.158	0.292	0.282	0.507	0.071	0.279	1.000					
14. Ln-EMPLOY	0.268	0.006	0.246	0.124	0.533	0.247	0.112	0.266	0.305	0.456	0.011	0.253	0.899	1.000				
15. Ln-MKTCAP	0.271	0.006	0.088	0.225	0.591	0.360	0.184	0.296	0.294	0.436	0.120	0.350	0.731	0.634	1.000			
16. Ln-TOTASS	0.399	0.036	0.177	0.273	0.713	0.362	0.229	0.275	0.238	0.474	0.159	0.193	0.889	0.744	0.783	1.000		
17. ROE	0.050	0.101	0.081	-0.01	0.064	0.150	0.011	0.115	0.020	0.111	0.012	0.108	0.200	0.191	0.203	0.094	1.000	
18. LEVERAGE	0.426	0.009	0.105	0.041	0.197	0.077	0.063	0.085	0.072	0.182	0.116	0.004	0.369	0.366	0.280	0.451	0.124	1.000
19. Listing Age	0.049	0.039	0.069	0.077	0.198	0.105	0.075	0.097	0.020	0.243	0.109	0.242	0.430	0.428	0.324	0.360	0.096	0.232

Appendices

Appendix 7: VIF Computation for Models 1 – 4 of Table 6.12

Independent Variables	Model 1	Model 2	Model 3	Model 4
PROFILE	1.39	1.40	1.40	1.46
Ln-ComNews	1.03	1.04	1.03	1.03
BODMET	1.09	1.13	1.12	1.08
BODCOMP	1.18	1.21	1.21	1.19
BODSIZ		1.80		
DISCOM	1.34	1.39	1.34	1.35
RISKCOM	1.11	1.13	1.12	1.15
CSRCOM	1.23	1.24	1.24	1.23
EXTAUD	1.25	1.29	1.27	1.23
Ln-OCSRD	1.70	1.68	1.68	1.67
Ln-CSRNews	1.14	1.17	1.17	1.12
R&D	1.26	1.35	1.31	1.26
Ln-TURN	2.03			
Ln-EMPLOY		2.61	2.42	
Ln-MKTCAP		2.47	2.17	
Ln-TOTASS				2.10
ROE	1.08	1.10	1.09	1.06
LEVERAGE	1.39	1.41	1.41	1.45
Listing Age	1.35	1.35	1.35	1.27
Mean VIF	**1.30**	**1.46**	**1.40**	**1.31**

Appendix 8: VIF computation for Models 5 – 8 of Table 6.14

Independent Variables	Model 5	Model 6	Model 7	Model 8
PROFILE	1.40	1.46	1.39	1.39
Ln-ComNews	1.05	1.04	1.04	1.04
BODMET	1.12	1.12	1.13	1.12
BODCOMP	1.35	1.35	1.41	1.40
BODSIZ			1.91	
AUDMET	1.85	1.96	1.84	1.80
AUDSIZ	1.46	1.42	1.56	1.41
DISCOM	1.37	1.39	1.43	1.39
RISKCOM	1.15	1.18	1.17	1.16
CSRCOM	1.25	1.25	1.26	1.26
EXTAUD	1.23	1.24	1.26	1.26
Ln-OCSRD	1.65	1.68	1.65	1.64
Ln-CSRNews	1.17	1.14	1.14	1.14
R&D	1.25	1.27	1.35	1.32
Ln-TURN	2.38			
Ln-MKTCAP			2.30	1.89
Ln-TOTASS		2.53		
ROE		1.06	1.09	1.09
ROA	1.07			
LEVERAGE	1.40	1.48	1.39	1.39
Listing Age	1.37	1.33	1.31	1.30
Mean VIF	**1.38**	**1.41**	**1.42**	**1.35**

Appendix 9: Correlation Matrix of IVs – Addition of new variables (Chapter 6: 6.6.2)

Independent Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. PROFILE	1.000																				
2. Ln-COMNEWS	0.004	1.000																			
3. BODMET	0.048	0.081	1.000																		
4. BODCOMP	0.121	0.078	-0.02	1.000																	
5. BODSIZ	0.233	0.022	0.041	0.177	1.000																
6. AUDMET	0.148	0.008	0.227	0.372	0.387	1.000															
7. AUDSIZ	0.186	-0.01	0.079	0.334	0.452	0.235	1.000														
8. DISCOM	0.176	0.050	0.136	0.262	0.332	0.407	0.135	1.000													
9. RISKCOM	-0.13	0.010	0.030	0.084	0.034	0.242	-0.01	0.145	1.000												
10. CSRCOM	0.100	0.033	0.094	0.210	0.241	0.313	0.215	0.336	0.076	1.000											
11. EXTAUD	-0.01	-0.01	0.103	0.134	0.115	0.266	0.082	0.128	0.128	0.132	1.000										
12. Ln-OCSRD	0.122	0.083	0.184	0.299	0.296	0.412	0.268	0.258	0.145	0.295	0.360	1.000									
13. Ln-CSRNews	0.025	0.079	0.077	0.147	0.047	0.213	0.013	0.103	0.108	0.117	0.152	0.249	1.000								
14. R&D	-0.05	0.054	0.034	0.142	0.104	0.242	0.104	0.239	0.016	0.210	0.169	0.275	-0.03	1.000							
15. Ln-TURN	0.294	0.036	0.207	0.202	0.639	0.530	0.454	0.341	0.152	0.288	0.268	0.491	0.068	0.264	1.000						
16. Ln-EMPLOY	0.262	0.009	0.237	0.104	0.527	0.405	0.377	0.246	0.106	0.264	0.286	0.431	0.005	0.235	0.898	1.000					
17. Ln-MKTCAP	0.271	0.013	0.074	0.206	0.592	0.488	0.356	0.365	0.181	0.296	0.269	0.402	0.117	0.336	0.729	0.620	1.000				
18. Ln-TOTASS	0.400	0.040	0.171	0.260	0.710	0.571	0.418	0.363	0.226	0.273	0.221	0.453	0.157	0.174	0.886	0.736	0.777	1.000			
19. ROE	0.051	0.100	0.072	-0.02	0.057	0.080	0.045	0.146	0.007	0.109	0.014	0.100	0.010	0.101	0.191	0.183	0.195	0.084	1.000		
20. ROA	-0.10	0.131	-0.01	-0.01	-0.08	-0.03	-0.05	0.060	-0.04	0.039	-0.02	0.018	-0.09	0.083	0.041	0.039	0.062	-0.12	0.845	1.000	
21. LEVERAGE	0.423	0.015	0.105	0.038	0.195	0.132	0.240	0.078	0.060	0.086	0.063	0.174	0.113	-0.00	0.368	0.364	0.276	0.451	0.126	-0.10	1.000
22. Listing Age	0.048	0.042	0.060	0.063	0.192	0.250	0.292	0.101	0.066	0.091	0.011	0.233	0.107	0.236	0.424	0.423	0.318	0.354	0.089	-0.02	0.230

Appendix 10: The Hausman Test and Breusch & Pagan LM Test for Eq.14

Appendix 10a

```
. hausman fixed random

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
    VOLCCID1 |    .0028989     .0028033        .0000956        .0000925
          BM |   -.0148426     .0121781       -.0270206        .0115327
          BS |    .0048683     .0410842       -.0362159        .0219831
          BC |    .6738589     .2923054        .3815536        .3011381
         ACM |    .1177517     .0992944        .0184573        .0230826
         ACS |   -.1272095    -.1049793       -.0222302        .0364558
          DC |   -.4250487    -.3537775       -.0712712        .0889146
          RC |    .0838575     .2335927       -.1497353        .1036503
        CSRC |    .2993857     .2801021        .0192836        .0804375
       ExAud |    .6067146     .6940686        -.087354         .109188
         ROE |    .0019587     .0026843       -.0007255        .0019281
         ROA |   -.0105786     -.011462        .0008834        .0032725
         LEV |    -.004902    -.0022558       -.0026462        .0020456
      LNTurn |    .3374624     .2058407        .1316217        .1137342
    LnMktCap |    .0299198      .045464       -.0155442        .0173212
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(15) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                           =       22.57
                Prob>chi2 =      0.0938
```

Appendix 10b

```
Breusch and Pagan Lagrangian multiplier test for random effects

        TQS[Id,t] = Xb + u[Id] + e[Id,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                     TQS |   5.36449       2.316137
                       e |   1.77084       1.330729
                       u |  .6289061        .793036

        Test:   Var(u) = 0
                             chi2(1) =   178.09
                         Prob > chi2 =     0.0000
```

Appendix 11: Workbook for the Semiotics of Community Disclosure narratives

SN	Company Name	Year	Topics	Characteristics	Veridictory status	Ontological status
1	Aquarius Platinum	2003	Community Program	P1a = seeming P1b = being	TRUE	Doubtful
				P2a = not-seeming P2b = not being	FALSE	
			Education & The Art	P1a = seeming P1b = being	TRUE	Doubtful
				P2a = not-seeming H2b = not being	FALSE	
			Health & Related activities	P1a = seeming P1b = not-being	ILLUSION	Doubtful
				P2a = seeming P2b = being	TRUE	
		2008	Community Program	P1a = seeming P1b = not-being	ILLUSION	Doubtful
				P2a = seeming P2b = being	TRUE	
			Health & Related activities	P1a = seeming P1b = being	TRUE	Doubtful
				P2a = not-seeming P2b = not being	FALSE	
2	BHP	2005	General statements			
		2009	Community Program	P1a = not-seeming P1b = not being	FALSE	Unreal
				P2a = not-seeming P2b = not being	FALSE	

3	British American Tobacco	2004	General statements			
		2009	Community Program	P1a = not-seeming P1b = not being	FALSE	Unreal
				P2a = not-seeming P2b = not being	FALSE	
			Other Community activities	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
4	Unilever	2002	Community Program	P1a = not-seeming P1b = being	SECRET	Doubtful
				P2a = not-seeming P2b = not being	FALSE	
			Education & The Art	P1a = seeming P1b = being	TRUE	Doubtful
				P2a = not-seeming P2b = not being	FALSE	
			Health & Related activities	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
		2008	Community Program	P1a = seeming P1b = being	TRUE	Doubtful
				P2a = not-seeming P2b = not being	FALSE	
			Health & Related activities	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	

5	WPP	2001	Education & The Art	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
			Other Community activities	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
		2006	Community Program	P1a = not-seeming P1b = being	SECRET	Doubtful
				P2a = not-seeming P2b = not being	FALSE	
			Education & The Art	P1a = not-seeming P1b = being	SECRET	Doubtful
				P2a = not-seeming P2b = not being	FALSE	
			Health & Related activities	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
6	Tesco	2002	Community Program	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
			Education & The Art	P1a = not-seeming P1b = being	SECRET	Doubtful
				P2a = not-seeming P2b = being	SECRET	
			Other Community activities	P1a = seeming P1b = being	TRUE	Doubtful
				P2a = not-seeming P2b = not-being	FALSE	

6	Tesco	2006	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Health & Related activities	P1a = seeming P1b = being P2a = not-seeming P2b = not-being	TRUE FALSE	Doubtful
			Other Community activities	P1a = not-seeming P1b = being P2a = not-seeming P2b = not-being	SECRET FALSE	Doubtful
7	Lloyds TSB	2003	**Community Program**	P1a = not-seeming P1b = not-being P2a = not-seeming P2b = not being	FALSE FALSE	Unreal
			Education & The Art	P1a = not-seeming P1b = not-being P2a = not-seeming P2b = not being	FALSE FALSE	Unreal
		2007	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Other Community activities	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real

8	Prudential	2000	Community Program	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Education & The Art	P1a = seeming P1b = being P2a = not-seeming P2b = not being	TRUE FALSE	Doubtful
		2005	Community Program	P1a = seeming P1b = being P2a = not-seeming P2b = not being	TRUE FALSE	Doubtful
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Other Community activities	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
9	Smith &Nephew	2004	Health & Related activities	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
		2009	Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Health & Related activities	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
10	BTG	2004	Community Program	P1a = not- seeming P1b = not-being P2a = not-seeming P2b = not being	FALSE FALSE	Unreal

10	BTG	2009	**Community Program**	P1a = not- seeming P1b = not-being P2a = not-seeming P2b = not being	FALSE FALSE	Unreal
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Health & Related activities	P1a = seeming P1b = being P2a = not-seeming P2b = not being	TRUE FALSE	Doubtful
11	Carillion	2003	**Community Program**	P1a = not-seeming P1b = being P2a = not-seeming P2b = not being	SECRET FALSE	Doubtful
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Other Community activities	P1a = not-seeming P1b = not-being P2a = not-seeming P2b = not being	FALSE FALSE	Unreal
		2009	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real

12	Rolls Royce	2003	**Community Program**	P1a = not-seeming P1b = not-being P2a = not-seeming P2b = not being	FALSE FALSE	Unreal
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
		2006	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
13	Premier Oil	2004	**Education & The Art**	P1a = seeming P1b = not-being P2a = seeming P2b = being	ILLUSION TRUE	Doubtful
		2009	**Community Program**	P1a = not-seeming P1b = being P2a = not-seeming P2b = not being	SECRET FALSE	Doubtful
14	BP	2003	**Community Program**	P1a = not-seeming P1b = being P2a = not-seeming P2b = not being	SECRET FALSE	Doubtful
		2008	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Other Community activities	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real

15	ARM Holdings	2001	**Community Program**	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
			Education & The Art	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
		2005	**Community Program**	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
			Education & The Art	P1a = seeming P1b = being	TRUE	Real
				P2a = seeming P2b = being	TRUE	
16	Computacenter	2004	**General statements**			
		2009	**Community Program**	P1a = not-seeming P1b = not-being	FALSE	Unreal
				P2a = not-seeming P2b = not being	FALSE	
			Education & The Art	P1a = seeming P1b = not-being	ILLUSION	Doubtful
				P2a = not-seeming P2b = not being	FALSE	

17	BT Group	2004	**Community Program**	P1a = seeming P1b = being P2a = not-seeming P2b = not being	TRUE FALSE	Doubtful
			Education & The Art	P1a = seeming P1b = being P2a = not-seeming P2b = not being	TRUE FALSE	Doubtful
			Other Community activities	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
		2009	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = not-being	TRUE ILLUSION	Doubtful
			Other Community activities	P1a = seeming P1b = not-being P2a = seeming P2b = not-being	ILLUSION ILLUSION	Unreal
18	Carphone Warehouse	2003	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = not-being	TRUE ILLUSION	Doubtful
			Education & The Art	P1a = seeming P1b = being P2a = not-seeming P2b = not-being	TRUE FALSE	Doubtful
			Health & Related activities	P1a = seeming P1b = being P2a = not-seeming P2b = not being	TRUE FALSE	Doubtful
		2008	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Education & The Art	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real

19	**Centrica**	**2003**	**Community Program**	P1a = seeming P1b = being P2a = seeming P2b = being	TRUE TRUE	Real
			Education & The Art	P1a = not-seeming P1b = being P2a = not-seeming P2b = not-being	SECRET FALSE	Doubtful
			Other Community activities	P1a = not-seeming P1b = being P2a = not-seeming P2b = being	SECRET SECRET	Doubtful
		2009	**Community Program**	P1a = not-seeming P1b = being P2a = not-seeming P2b = not-being	SECRET FALSE	Doubtful
20	**Severn Trent**	**2003**	**Community Program**	P1a = not-seeming P1b = being P2a = seeming P2b = being	SECRET TRUE	Doubtful
			Education & The Art	P1a = not-seeming P1b = being P2a = seeming P2b = being	SECRET TRUE	Doubtful
		2005	**Education & The Art**	P1a = not-seeming P1b = being P2a = seeming P2b = being	SECRET TRUE	Doubtful

Appendix 12: Published Paper – Yekini, K & Jallow, K (2012) full text

The current issue and full text archive of this journal is available at
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Corporate community involvement disclosures in annual report

A measure of corporate community development or a signal of CSR observance?

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Abstract

Purpose – The purpose of this study is to examine whether corporate community involvement disclosures (CCID) in annual reports can be construed as a measure of corporate community development (CCD) or a mere signal of corporate social responsibility (CSR) observance.

Design/methodology/approach – Using content analysis and a quality score index, the study examined a panel data set covering the period from 1999 to 2008. The data was collected from a sample of 270 annual reports of 27 UK companies taken from the top 100 companies for corporate responsibility (BITC ranking, 2008). The research framework involves the use of signalling theory to investigate the information content of CCID.

Findings – It is found that the volume of corporate community disclosure (CCID) has a significant association with its total quality score (TQS) although the impact was found to be very small. CCID was also found to be strongly and positively associated with the volume of total CSR disclosed in annual reports. Hence the quantity and quality of CCID in annual reports increased significantly as the quantity of CSR disclosure also increased. Furthermore, the TQS was found to respond to company size and Corporate Governance measures such as audit committee size and board composition, and the existence of standalone CSR Reports, while other measures of public pressure such as leverage, profitability and industrial sector were not statistically significantly related with TQS.

Originality/value – This paper contributes to CSR literature in general and CCID literature in particular. The originality stems from the fact that it employs a signalling framework and a panel study approach as opposed to cross-sectional only or time-series only data to examine a less researched social disclosure – corporate community involvement.

Keywords United Kingdom, Corporate governance, Social responsibility, Annual reports, Community involvement, Disclosures, Signalling theory

Paper type Research paper

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